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ABSTRACT

A 3-year guidance program to increase achievement level and motivation admitted 73 low achieving 10th graders. Experimental subjects were assigned to seminar or non-seminar groups; controls remained in the usual slow track. Both experimental groups were divided into smaller groups for flexibly programed classes in English, social studies, and reading and for guidance classes; both groups participated in weekly cultural programs and field trips. The seminars for the one group provided individual counseling, conferences, supervised study, and library work. Students were evaluated throughout the program. Results varied from year to year but there were no significant differences in IQ or motivation. Although all had losses in achievement test scores at the end of the 1st year, the seminar group ranked first at the close of the program on every criterion measure variable, thus suggesting a differential response to the program. (JD)

N.SG

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A PROGRAM TO INCREASE THE MOTIVATION OF LOW ACHIEVING STUDENTS

PRINCIPAL INVESTIGATORS

Mrs. Jeanette Schur Sutton
(Sept., 1965 - June, 1967)

Mrs. Barbara T. Barnhart
(Sept., 1967 - June, 1968)

Dr. Gerald H. Palter
(Sept., 1965 - June, 1968)

IMPLEMENTING AGENCY

CENTRAL SCHOOL DISTRICT NUMBER TWO
Syosset, New York 11791

September, 1965 - June, 1968

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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FINAL REPORT

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I

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The program could not have functioned without the continued patience, effort, and dedication of the following staff members of this team:

Mr. Stephen J. Benkovitz - Social Studies

Mrs. Marilyn Fiebert - Reading Consultant

Mrs. Ruth Gold - Librarian

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VI. INTRODUCTION:

A. The Problem

Syosset High School, like all other high schools across the country, had a group of students who were considered to be low achievers, i.e., measured achievement level was below their measured indication of ability. These students occupied classroom space, but did not learn, and may be thought of as mental drop-outs. In the past, these students were placed in a separate program intended to remediate their learning difficulty. The purpose of the differential tracking was to "promote" these students to the standard program. However, examination of the record showed that few students moved from the remedial to the standard track; the few who did advance achieved only marginal success. The remedial track was not clearly differentiated, and whatever differences existed between the tracks served to perpetuate placement in the remedial track. The low achiever has been aptly described as "the unsolved problem" of the high schools.

In urban and rural communities, many of these low achieving students become school drop-outs, i.e., they physically discontinue school attendance. This drop-out problem has been the subject of much concern and study in recent years. However, in suburban communities, largely middle income groups, parental pressures operate to maintain the student in school physically - in body, if not in spirit - and the student becomes a "mental drop-out". The continued presence in school of these mental drop-outs presents additional difficulties to the school, but also presents the opportunity of new solutions to their problems.

The faculty at Syosset High School believed that we needed a more effective and realistic approach to our underachieving pupils. The related literature and our own observations suggested that there were several basic factors which contributed to underachievement. There have been many projects which have attempted to resolve the problems of the underachiever by modifying one factor or another. But, since most studies point to the multiple nature of the problem, a remedial approach should perforce require a multiple attempt at solution.

A review of the related literature indicates no single cause, and no simple cure. Among the most often cited causes of low achievers were:dissatisfactions of both teachers and the students themselves, the low achievers' poor self-concept, the importance of the teachers' role and attitudes, and the necessity for curriculum modification. Much of the previous research on the underachiever has been focused on extreme groups, that is, the bright underachiever, or to a lesser extent, the underachiever who shows evidence of below average ability. The majority of our underachievers appeared to have at least average ability as reflected on the usual group intelligence test. "At least" refers to the fact that these students attained their test scores despite their academic disabilities, and all the negative attitudes that have been ascribed to underachievers.

This project was concerned with the improvement of the achievement of low achieving high school students by the development of a multiple approach. The approach focused on three major areas that have been identified in other studies as factors in underachievement.

One of the possible variables involved in poor achievement is the self-concept of the student. Since this broad self-concept subsumes many factors, this investigation focused on one aspect of self-concept, the motivation of the student to achieve. The intent of the study was to identify the motivation of high school low achievers, to increase their motivation, and to improve their level of achievement. In order to accomplish this, the project utilized an approach which attempted to modify those areas which have been described as being related to poor school achievement: the attitude of the teacher, the teaching techniques and curriculum employed, and the attitude of the low achiever. The purpose was to increase the motivation of the low achievers by relating the curriculum content to them more directly, by small group seminar discussions which would make the academic material more meaningful, and by reflecting their worth in positive teacher attitudes toward them.

Thorndike[14] indicates that in designing research on "underachievement" the focus of research concern should be on areas that represent possible modifiability, as contrasted with "stable relatively unmodifiable factors" such as sex or aptitude. Motivation can be experimentally aroused and the intensity affected by manipulating experimental conditions.

B. Review of the Literature:

The approaches to resolving the problems of underachievement that we used in this study were suggested by the findings and writings of many writers. In both theory and practice, certain variables were frequently mentioned as being associated with underachievers. The general problem of the children involved in our study is aptly described in the following quote from Holt:

> "Subject peoples both appease their rulers and satisfy some part of their desire for human dignity

> by putting on a mask, by acting much more stupid and incompetent than they really are, by denying their rulers the full use of their intelligence and ability, by declaring their minds and spirits free of their enslaved bodies.
>
> "Does not something very close to this happen often in school? Children are subject peoples. School for them is a kind of jail. Do they not, to some extent, escape and frustrate the relentless, insatiable pressure of their elders by withdrawing the most intelligent and creative parts of their minds from the scene? Is this not at least a partial explanation of the extraordinary stupidity that otherwise bright children so often show in school?----- Under pressure that they want to resist but don't dare to resist openly, some children may quite deliberately go stupid. They deny their intelligence to their jailers, the teachers, not so much to frustrate them, but because they have other and more important uses for it. The result is that they are not all there during most of their hours in school."[7]

One of the general frames of reference for the study was Kelly's examination of the educational process in his discussion of "Education for What Is Real". He views learning as a function of the perception of the learner:

> "We assume that the child goes to school to acquire knowledge, and that knowledge is something which has existed for a long time and is handed down on authority. Learning, then, under this assumption becomes a matter of acquisition and acceptance. If the student fails to acquire an education, he is opposing the demands of authority. Since each teacher is an authority in his own right, subjects are taught separately and there is a failure to synthesize various subjects with each other and to the learner himself. We should not assume that the subject matter means the same to the student as it does to the teacher."[9]

These observations have far reaching implications regarding curriculum, tracking and learning and suggest that the subject matter, the teacher and the student must all be considered part of a common matrix when the process of education is examined. Both meaning and meaningfulness of subject matter are important to learning at all age levels. At the high school level, it becomes particularly important for the adolescent to perceive the world independently rather than accept it because of authority. Lorand in analyzing the learning problems of adolescents, pointed out the very personal nature of learning. She finds that adolescents are so concerned about social relationships, appearance, popularity, etc.,

> "...that very little energy remains for school work, which, by comparison, is not meaningful but rather is an artificial task imposed on them."

They are required to endure tension and frustration and they often turn from learning to activities in which they can secure immediate gratification, pretending contempt for their peers who maintain academic standards.

> "The need to not know is a fundamental difficulty in many learning disabilities. To learn means to learn painful facts; therefore, all learning is feared and avoided."[10]

Atkinson and Feather described the failure-threatened personality as the individual in whom the motive to avoid failure greatly exceeds the motive to achieve. They said that such an individual is so threatened by failure that he resists and avoids activities in which his competence might be evaluated against the standard or the competence of others. They pointed out that social pressures and constraints rather than motivation to achieve force him to undertake activities requiring skill when there is uncertainty about the outcome.

> "Given an opportunity to quit an activity that entails evaluation of his performance for some other kind of activity, he is quick to take it."

The failure threatened individual is described as suffering "a chronic detriment in achievement tests" whose chronic and repetitive failures cause him to be pessimistic about his chances in future undertakings.[1]

Many writers have described several sources of underachievement with particular focus upon the role of the underachiever's self-concept. Carmical described the characteristics of high school achievers and underachievers. Motivational forces, curriculum and personality structure were all mentioned as causative factors. The writer recommended that further investigations be made of the self-concept of the underachiever who appears to have a low regard for himself because he has not known the satisfaction that can be experienced from academic success.[3]

Goldberg et al made a comparison of different groups of high school students (bright, average and slow). They found that underachievers viewed themselves as less adequate in intellectual and task-related behavior but their "wishes" in these areas were comparable to those of achievers. This indicated a greater discrepancy between underachievers' perception of self and their aspirations or wished-for self. The findings suggested that the underachiever may view achievement as beyond his means to accomplish and therefore must either lower his aspirations to minimal levels or seek less appropriate measures to improve his attitude toward self. A comparison of improved with non-improved underachievers suggested that the latter saw little chance of reconciling their real and wished for status.[5]

This discrepancy between real and wish status was described by Horney as a basic source of conflict. One of the ways the individual seeks to solve conflict is to create an image of what the individual believes himself to be, or what he feels he can or ought to be. This image exerts a real influence on the person's life even though it may be an unrealistic image. The more unrealistic the image, the more it makes the person vulnerable and avid for outside affirmation and recognition. If the individual focuses either upon the realistic self or the discrepancy between the idealized image and actual self,

> "then all he is aware of and all we can observe are his incessant attempts to bridge the gap and whip himself into perfection. He keeps telling us what he should have felt, thought, done."[8]

Therefore, to create the acceptable image, the low achiever avoids achievement as a means of improving his image and would have poor motivation in this area. Both the teacher and the curriculum material serve as reflectors of what the underachiever does and what he fails to do.

Torrance noted that the concept of the underachiever lacks objective determination and is too often wrapped up in the values of the teacher. Among suggested reasons for underachievement are critical attitudes shown toward the underachiever, e.g., unsought opinions, scorned imagination.[16]

Epperson commented about the effects of the student's alienation from the teacher upon the academic output of the pupil, and the fact that teachers exclude deviates who can recognize teacher disapproval.[4]

E. Blechman in a review of current practices with slow learners, criticized watered-down life-adjustment and general course instruction. He objected to the limited scope of these programs which do not permit the adolescent to

> "immerse himself in the larger world of man because .....there is nothing in such education that will enable a person to live with himself." 2

Matire's study of self-concept and achievement motivation showed that subject with low achievement motivation, rated achievement related traits as unimportant and therefore have less discrepancy between their level of motivation and their self-description.[11]

Winterbottom found that individuals with low need for achievement have mothers who are less demanding and tend to have little faith in their ability to do things. This suggests an important influence of teacher attitude upon the low achiever since teachers of this group tend to expect little of them in achievement.[18] McClelland et al also found this relationship between independence training and need for achievement: Parents who expect achievement from their children tend to get such behavior from them.[12]

Williams et al found that feelings of underachievers related to their sense of failure and disappointments with themselves. They also found that underachievers revealed a lack of strictness, praise and pressure in relation to their parents. Thus, lack of expectations from teachers and lowered standards could contribute to lack of motivation to achieve.[17]

Hypotheses (stated in null form)

a) A guidance program will not significantly increase the achievement motivation of a group of high school low achievers.

b) A guidance program will have no significant effect upon the achievement level of a group of high school low achievers.

For the purpose of the study, the below terms are operationally defined as follows:

Achievement Motivation

Concern over competition with a standard of excellence

Low Achiever

Students assigned to tenth grade track three in English and social studies by teachers and guidance counselor on the basis of actual class performance, grades, and test scores.

Guidance Program

An enriched program consisting of curriculum and methods, student seminars and faculty seminars.

Objectives:

1. Increase students' motivation to achieve by:
   a) Creating more positive teacher attitudes.
   b) Creating a more meaningful curriculum.
   c) Increasing the standards of performance in English and social studies.
   d) Relating their personal interests to the curriculum.
   e) Creating an in-group with which they can identify and which reflects a desire for achievement and academic success.

2. Increase students' actual achievement in all subjects by raising their achievement motivation and increasing academic skills.

3. Development of a new approach to low achieving high school "drop-outs" by a guidance and curriculum approach.

4. Demonstration of techniques and approach to teachers other than those directly participating in the project (high school level), and to teachers on lower grade levels.

5. Development of new curriculum materials based on actual use and experience with these materials in the classroom.

VII. Procedures:

a. Subjects Involved

All pupils recommended for track three in English and Social Studies in tenth grade for the school year beginning September, 1965 were included in the study with the exception of those students assigned to a part-time vocational program out of the district. On this basis a total of seventy-three students was included in the study out of a total available population of ninety-one. (The remaining eighteen were students in the vocational program). In accord with the recommendation of the State Education Department, the size of the control group was increased by fifty subjects for statistical analysis of the final results. These students met the same criteria for being low achievers as the original group and were selected from the grade which was a year behind our original group. The assignment to track three was made in ninth grade on the basis of teacher and guidance counselor recommendations, actual class performance and grades and test scores. Originally it was intended to also statistically identify and confirm the low achieving students, but several operational difficulties prevented the use of this method to select subjects for the study, although the use of regression equations was used subsequently to describe performance. It was intended originally to use the Sequential Tests of Education Progress, part of the guidance program for tenth grade, as the criterion of achievement. The scores of the Otis Intelligence Test, also part of the regular guidance program administered in ninth grade were to be used as the predictor score. However, there was an unavoidable delay in having the test scores returned from the Test Scoring Service and a further delay in obtaining the results of the statistical analysis of the scores, so that this data was not available until the end of the first year of the program after the groups had already been organized. Further, the State Education Department recommended at the end of the year that a second IQ score be obtained to make this measure more reliable. Results of this testing were not available until the middle of the second year of the program.

The students selected were randomly assigned to a control group and two experimental groups. Distribution of boys and girls in each group was equalized. Mean IQ's were calculated for the various groups to ascertain if the groups were equivalent.

The tenth grade low achievement students were divided into three groups:

1) Experimental Group A - Seminar

2) Experimental Group B - Non-Seminar

3) Control - Regular Track 3

b. Educational Activities

1) Experimental Group A

The students who comprised Experimental Group A were divided into two smaller class groups for classes in English and Social Studies. These classes were held periods one and two in the day and, together with a third period, formed a block of time that was utilized for team teaching, small discussion groups, and other procedures which required flexible programming.

The third period of the day was used for student seminar meetings (two periods per week), individual counseling, supervised study, library work, and teacher-student conferences. The seminar groups consisted of seven to eight students.

After screening by the reading teacher, the group was divided into three smaller groups based on their reading level and reading disabilities for the purpose of receiving remedial instruction one period per week.

The group attended group guidance classes, guidance topics were explored, e.g., vocational interests, career areas, recreational interests, hobbies, clubs, et cetera.

Weekly enrichment programs were scheduled to involve the students in activities in which they ordinarily would not participate. These activities included films, folk music, science lectures, and field trips.

The field trips were to historical museums, art exhibits, theatres and subjects of general interest (communications, transportation, et cetera). In all instances field trips were related to current topics in the curriculum.

2) Experimental Group B

This group followed the same program as Experimental Group A except they did not participate in the student seminars. They were divided into two smaller groups for classes in English and Social Studies.

3) Control Group

These students followed a regular program of study selected according to the usual high school procedure. No special provisions were made for them, and they served as a comparison group for the two experimental groups by providing a standard of reference for statistical purposes.

4) Faculty Seminars

All faculty members involved in the program attended two faculty seminar meetings per week for the purpose of discussing students, classes, instructional techniques, curriculum and teacher attitudes.

The program activities fell into three categories, separate, but related: curriculum, student seminars and faculty seminars.

Curriculum guides in English and Social Studies were prepared prior to each school year to provide a frame of reference for curriculum development during the year. Materials and techniques were prepared, added, deleted and modified as an ongoing process during the term. Teacher preparation periods and the faculty seminars were used to evaluate curriculum materials and methods. Experiences with students in the classroom were reflected in revisions that were made. Core programming in English and Social Studies with back-to-back scheduling, followed by student seminar, permitted integration of both subjects. The student seminar fostered small group discussion of classroom topics and provided feedback to the teachers about the students' reactions to the previous classes.

In addition to the textbooks, supplementary readings, films, field trips, recordings and invited resource persons were used.

The following reports of activities are representative of classwork, seminars and curriculum development and evaluation which occurred during the three years of the program:

The study of the Etruscans; Hannibal; Caesar; the Barbarians; Early Christianity; and the Middle Ages --In relating English studies to this period of history, the use of the language and alphabet was introduced with excerpts from writings of that period. During the study of the Crusades and the beginning of the Renaissance, youngsters had the privilege of visiting the Cloisters; at another time, they heard the author of one of their textbooks, Dr. Jack Abramowitz, talk.

It would appear that our awareness of their dearth of experiences with art forms arose from the Cloisters trip. This wasn't actually the case. We were quite aware, from the beginning, of this gap in their experience. What we did learn from the trip was that we had undertaken too much, too soon. The visit to the Cloisters substantiated the lack of readiness on the part of these students to accept, understand and appreciate art, and their need for structure and limits.

The low achiever usually regards all art forms - theatre, film, music and visual art with suspicion. The faculty, therefore, instituted a regular Friday program of enrichment. This enrichment included films such as: "Have I Told You Lately That I Love You?", "The Humanities", "Roots of Happiness", and "The Theatre". The subject matter ranged from personal and family problems, to enrichment and appreciation of art forms. A "live" program and discussion of folk music led by a member of the English Department, provoked extraordinary interest. All such Friday sessions were led by teachers in the study program and/or guest teachers from our high school, or other institutions. Question-discussions were built into the program by the faculty to provide mental stimulation and enjoyment.

Students in Speech were taught parliamentary procedure, techniques of group discussion, and how to relate personal and community problems to group discussion.

The history of Europe up to the sixteenth century with emphasis on its cultural and economic aspects: Feudalism; Role of the Church; Crusades; Revival of Trade; Renaissance; New Ideas in Religion - During the regular teacher curriculum planning sessions, the teachers agreed that the historical thread binding this period together would be man's relationship to the state.

The English program used "26 Letters" to discuss the history of punctuation and the impact of printing during the sixteenth century. "26 Letters" also demonstrated dramatically the myriad factors of luck, circumstance, scientific knowledge that pushes men.

An attempt to relate this to the present was also made. The Social Studies program called for a dramatization of a scene from history. So, in Speech, we went directly to the Drama Unit: How to Act in Plays; and Creative Dramatics, to coincide with the Social Studies unit. There was coordination between the two subject matter areas in that the Speech classes, working on a dramatization of The Signing of the Magna Carta, improvised, wrote a script, costumed, staged and presented a short play on this subject. The rest of the unit included the appreciation of drama as entertainment, i.e., pantomime, improvisation, the structure of a play and differences between tragedy and comedy. Plays studied included: "You Can't Take It With You", "I Remember Mama" and "Life With Father". English classes included literature relating to the growth of democracy - the theme of Social Studies.

Field trips were used to supplement class work. The study of the Middle Ages led to a visit to the Cloisters; such visitations were rare for our group. A visit to the New York Air Traffic Control Center was related to the Crusades - Renaissance - Da Vinci.

Our field trips were multipurposed. They provided supplementary material for class work and provided material for further discussion. The trip itself was a new experience for most students and we used the trips to establish a standard of behavior. Gross misbehavior and inability to "use" a field trip was quickly followed by another field trip to achieve several goals:

1. To indicate our confidence in the group.
2. To reward those students that met minimal standards of behavior.
3. To clearly demarcate the new group in which we included many borderline students who thus were identified as belonging to the "new in-group" as a means of separating them from the "old in-group". The "old" group thus became identified as a minority group who received no recognition or reward. Comments by the students to the posted list of students who were to go on the next field trip attested to the success of this technique in establishing a "new in-group". The trip to the Air Traffic Control Center was eminently successful as reflected in the interest shown, questions asked, and the very commendable behavior manifested by the students. Many of the out-group students wanted to know the next day, "How do we get on the list?"

Enrichment highlights included in the curriculum in addition to the field trips and the guest lecturer on the Crusades were:

1. The introduction of a mobile library on all subjects to stimulate reading for pleasure as well as content.
2. The further utilization of the student seminars as a bridge between subject matter and life by introducing readings, records and pictures from the Renaissance.

3. A radio show depicting the Black Plague and a dramatic performance of the Signing of the Magna Carta. Performances and scripts were by the students, as an outgrowth of Speech class work.

4. An exhibition of drawings by students showing the development of weaponry and dress.

In addition to the daily lesson plan, the weekly formal curriculum planning sessions and the many informal curriculum discussions, the teacher kept a summary, the anecdotal record of what went on in the classroom. The students' reactions to the subject matter and the teachers' opinions of the lesson were carefully recorded. The anecdotal record served as an invaluable guide for future lesson planning and provided us with an insight into the youngsters' lack of desire to learn.

Student Seminars:

The four participating teachers in Social Studies and English conducted student seminars during the third period, four days each week. These didactic student seminars were in operation from the beginning of the program. By the beginning of the new semester in January, the guidance counselor and school psychologist were introduced as participants in the seminars. The seminars were used to achieve several goals:

1. To further elaborate and discuss class materials of the first and second periods - i.e., English and Social Studies.
2. To use English and Social Studies as complementary subjects, by discussing in seminar, aspects that are common to both subjects.
3. To make school subjects more meaningful by relating their content to the students and by encouraging each student to react individually to the material as it currently and individually affects him.

In both seminar and class, the teacher sought to mobilize active individual student participation to promote the development of a new group standard. The usual standard for our group was non-participation, non-verbal responses or reactions that are irrelevant to the academic material, (i.e., fooling around, talking out, etc.). The usual group pressure on its members was not to do work or participate if they wished to receive group approval, and membership in the group. Our goal, through teacher encouragement, praise, attention, focused on interruptive student tactics, and employment of group rather than teacher censure, was to convert the group standard to one of active participation and discussion of class work. The pressure was then on non-participants to join, and upon disruptive students to conform to a new class standard because of class group pressure. While it was expected that some students would remain non-participating and disruptive because of multiple severe problems, it was our goal to make these students an ineffective minority identified by the other students as such, rather than have them serve as models for the group.

The initial uneasiness of faculty members in being involved in seminar meetings was largely dispelled through experience and discussion of difficulties in our teacher seminar meetings. A major contribution of the student seminars to student participation was the model set by the teachers by their own involvement and willingness to react, and to discuss their reactions and what the topics meant to them, thereby setting an example for the students and stimulating the students to participate. This active interaction also reduced the separation between teacher and student that our students perceived, exaggerated and distorted as an insurmountable barrier to any dialogue between teacher and student.

In seminar, the students expressed their intense feelings about school, the "system", their self-deprecation, feelings of futility and inadequacy in learning and their reactions to education, both general and specific (e.g., sense of sameness and boredom in their lives, "Why are we here?" - "We're like bumps on a log"). Some students, unable to participate in the larger groups of the classroom, spoke in seminar when the discussion seemed less academic and where personal viewpoints, not as vulnerable to criticism, were not only possible, but were encouraged and heard.

Much of what occurred in seminar also occurred in the classroom. - They were continuations of each other. In class, not only did the students discuss the curriculum materials, but were engaged in learning to criticize and evaluate their criticisms. They learned to think, and to ask questions about their world and themselves and to see the relationship between subject matter and themselves. (e.g., connection between automation - communication - family.)

The atmosphere between teachers and students became more relaxed. Many of the students were able to listen to each other's opinions on a variety of topics such as, orthodontia, pictures of Greece and Rome, rock and roll records, clothes, films, fads, grades in school, the length of the school day, permissive parents, why go to school, etc.

The students reacted in a more positive fashion to the need for the seminar. However, the faculty seminar leaders were not, at the beginning, able to utilize the seminar as a means of probing into the learning problem of each student participant. This took considerable time.

Faculty Seminars:

On Tuesday and Thursday afternoons from approximately 1:30 to 3:30 P.M., the faculty team discussed student reactions to the regular class lesson and the seminar. We discussed:

1. Experiences and difficulties that occurred in classroom and seminar.
2. Curriculum materials that had been tried, how successful they were, and possible new materials or techniques to be introduced.
3. Observations and information on individual students appropriate to learning or behavior difficulties presented by the students.
4. Techniques to be used with the group - e.g., handling silence which was the result of non-participation, grades on report cards, use of a mobile library in the classroom, classroom discipline.
5. Current theory in education and psychology relevant to learning, perception, creativity and intellectual functioning, adolescence, theory, current research findings and our own experiences were reviewed and related. For example:

During the first month of the program, case histories and guidance records of each student were analyzed in order to obtain a picture of the child's school record and past behavior. Subsequently, each faculty team member reported on a study made on the underachieving child for the purpose of acquainting the whole team with the results of the work of psychologists and teachers in this area. The psychologist summarized the results and highlighted applicable points where necessary.

Some of the faculty seminar sessions were devoted to the history and development of Intelligence Testing, as well as the proper and improper use of these tests by the classroom teacher.

Remedial Reading Program:

Reading Tests - The total number of Enriched Track 3 Program students assigned to reading instruction were tested with the DIAGNOSTIC READING TEST: - Survey Section. This was a silent reading test designed to screen students according to general reading proficiency and to diagnose specific weaknesses in speed, vocabulary, and comprehension. The test is constructed to measure proficiency in these areas for students in grades seven through the freshman year in college. According to the author's research, the most accurate range of the test is in grades nine, ten and eleven.

In addition to the silent reading test, an oral reading test was individually administered to each student in the program. The test used was the GRAY'S ORAL READING PARAGRAPHS TEST. Its purpose was to measure by grade level the oral reading proficiency of each student. The test was particularly valuable in detecting students with specific disabilities such as in word recognition and pronunciation, and in habits which effectively lowered efficiency in reading. Among these habits were frequent hesitation, repetition of words or phrases, substitution of words not in the text, omission of words in the text and general difficulty in reading paragraphs of increasing difficulty. Both silent and oral tests correlated well in determining the quality of reading. The bulk of students tested were below their actual grade level in reading abilities.

Remedial Reading Curriculum

Outline of Course and Procedure: A structured reading course was designed to help the student overcome the reading difficulties discovered in the testing. To more effectively instruct all students, three groups were established, into which students of similar reading ability were placed. Group One comprised the most seriously deficient readers; Group Two, the average range of deficient readers, and Group Three, the least deficient, (those who read closest to actual grade level).

Instruction was adapted to the needs of each group, and followed the plan of building and strengthening reading skills, particularly those which were lacking, or most deficient. When a skill was learned, practiced and mastered, another was introduced. With the accumulation and mastery of these skills, reading assignments were given which required their use. The goal of the curriculum in reading was to persuade students to use a large number of learned reading skills selectively and/or in combination to effectively achieve the total communication the author intended. The following skills were taught:

1. Purposeful skimming to locate specific information, as a method for review of material already read; as a means of previewing material to be read, and, as a means to get information rapidly from relatively easy reading material.
2. Finding the main idea of a sentence, a paragraph, and the entire reading selection.-To assess the author's purpose and to establish its value.
3. To read study-type material with an outline in mind.

The course made use of a variety of materials each designed to augment instruction in a skill or a number of related skills. Each of the following texts were used:

1. McCall-Crabbs Standard Test Lessons in Reading
2. Be a Better Reader by Nila Benton Smith
3. S R A Better Reading Books, - Books 1, 2 and 3 by Elizabeth Simpson

Later in the course, reading tests were again given to determine the extent of progress made by each student.

The reading teacher attended several teacher curriculum discussions. At these times, the team was given suggestions on how the subject teacher could assist in the correction of reading deficiencies.

Youngsters who found reading difficult and a chore did not read for pleasure. They also disliked doing the reading required by the school. The team librarian became a part of these students' every day life through the mobile library. A collection of fiction and non-fiction books was selected by the librarian, who highlighted the plot of several books, and gave the students interesting quotations in order to arouse interest. Special book selections applicable to the Social Studies work, yet within the students' reading level were also made. Books thus selected and "sold" to the students, included historical narratives and biographies.

Teachers worked closely with the librarian on research lessons. Special collections for these purposes were made easily available to the students in the library during special research lessons.

Each student was provided with an annotated reading list - "Pleasures of Reading". The list consisted of specially designed fiction to provide high interest combined with low reading level.

The librarian attended all curriculum planning sessions and faculty seminars, thus providing the teachers with suggestions of source material for curriculum enrichment. Film library catalogues were extensively used, and recommendations were made by the librarian to the entire team, on films to be used during the Friday enrichment programs.

As a part of the team, the librarian knew each child, his interests and his reading ability; and could therefore, give each student individual guidance to encourage learning through reading.

Program of the Guidance Counselor

Physical Arrangements: The guidance office was adjacent to classrooms where students and teachers spent the first, second and third periods. The counselor was readily available, and this was particularly important for some of these youngsters who had a low tolerance for frustration, and a relatively short attention span. When they were concerned with questions or problems, they were inclined to be impatient for attention. While our hope was that they learn to tolerate more frustration, in terms of getting to know them and their concerns, this physical arrangement was ideal.

First Semester Goals: Counselor for Students

1. For counselor and students to become acquainted, for establishing mutual respect and confidence.
2. To discuss and demonstrate various ways that students could use guidance to help them get the most out of high school years.
3. To discuss other resources, (outside the classroom situations), available in Syosset High School.
4. To motivate their thinking toward short and long term goals educationally and vocationally.
5. Emphasize importance of self-analysis, particularly to assess and face strengths and weaknesses, as well as characteristic ways of handling problems.
6. Through individual conferences with parents and/or students to learn more about students' family background, relationships, and aspirations.
7. To observe and learn more about pupils in group situations both in and out of classroom.

Implementation of First Semester Goals - with Students

Students in Experimental Group A and B were scheduled weekly for reading clinic, group guidance, and on Fridays, there were special assemblies including films, and guest speakers. (Experimental Group A also had bi-weekly seminar scheduled).

During scheduled group guidance, various techniques were tried:

1. Whole group lecture, followed by discussion, teacher initiated, and including topics such as, "What do I need to graduate?", "What subjects should I include if planning for further education?" - etc. This technique was used only in the beginning. Immediate purpose was to impart necessary basic information to all with an opportunity for student reaction and questions.

   Next phase was identifying and discussing topics suggested by students. An example of this grew out of their concern about track three label, and mobility, or lack of mobility.-"Would you rather be near the top of track three and learning, or just hanging on by your fingernails and a prayer at bottom of track two?"

2. Small group discussions were initiated when we started to explore vocational opportunities. Our librarian supplied many varied occupational monographs, which were displayed around the room on tables; browsing was encouraged. Then, students were grouped according to interests. So, while some were browsing, the counselor had an opportunity to discuss with a few youngsters, their vocational interests in greater depth, and to relate the general vocational information to the specific students involved. We planned small group visits to business and industry as a follow-up.

   A few students were motivated enough to do further exploration on their own. (Our ultimate goal for all). These were taught how to use the Dictionary Occupational Titles File of vocational information in the main guidance office.
3. Self testing and scoring of Kuder Preference and Personality Test as part of their self-analysis.
4. Films were viewed and discussed. For example, "Have I Told You Lately That I Love You?", shows a family materially well off but detached and cold. "Roots of Happiness" depicted a poor family, but one rich in human love and respect for one another, communication, and interaction.
5. Records and film strips have also been tried. - Purpose to raise questions in their minds, to elicit discussion of their reactions to same. Examples: -

   "Case of Nan", - a taped session of a freshman in high school getting acquainted with her counselor, and then discussing some problems.
   Motivation for Success, - a record and workbook unit designed to encourage planning and positive thinking in managing our lives.
   Should You Go to College, - a record and filmstrip suggesting the questions to be raised by all students.

First Semester Goals - Counselor with Staff

Communication was facilitated because of informal contacts daily with teachers, and planned bi-weekly seminars.-

1. To share with and pool pertinent information pertaining to individual students. To facilitate the use of this information as it relates to classroom behavior and attitudes.
2. To encourage referrals from staff.
3. To sense patterns, trends, or problems as they affected our project; to discuss same at seminar.

The Social Studies classes explored the New World including the Conquistadors, especially the story of Cortez in Mexico.

The curriculum covered our English Heritage and how the Colonists changed it. The teachers motivating this unit used the present struggle in Viet Nam to illustrate viewing history from different points of view. The topic Mercantilism and the Revolution was explored. The difficult concepts of the Constitution, how it was written, its implications, the division of power and its implementation were part of very lively class discussions. In another attempt to relate history to the present, we discussed the Negro and Black Power.

Concurrently, the English Department explored the concepts, emotions, characterization, form and language of "The Ox Bow Incident". Compositions within the novel's framework were assigned: "Man Is Basically Good; "Man Is Basically Evil". The film, "The Ox Bow Incident", "Democracy and Individual Responsibility" interpreted these ideas from the audio-visual frame of reference.

"The Old Man and the Sea" and a chapter from "The Uses of Language" were part of the curriculum prior to the reading and discussion of "The Catcher in the Rye". The discussions centered around the characters' motives and behavior; what is self; and the structure of this novel.

Records like "The Man of LaMancha" were used as enrichment, the teacher and students relating Don Quixote with Holden.

The students read and discussed "Raisin in the Sun". The conflicts between generations, past and present, were explored. The play, "Our Town" was also included on the curriculum agenda.

Friday's enrichment programs were used to relate the two core areas of instruction. The aims of the Friday programs were enrichment of the curriculum, exposure to new ideas, exposure to different mediums of expression--film, art, music: i.e., U.S. geography, including slides; the films - OX BOW INCIDENT: VERY NICE, VERY NICE: THE HANGMAN: FURY: SECRETS OF LIFE; a trip to West Point; an art exhibit; speaker--a lawyer, on the Constitution and law were some of the features programmed.

Discussions stemming from these presentations provided mental stimulation and enjoyment.

The High School Folk Singing Club presented a musical program, highlighting the songs dating from the Revolutionary War. The field trip to West Point was made at the time the classes were studying the Revolutionary War. The students regarded field trips in 1967-68 with pleasure; their deportment was excellent--as contrasted with last year's immature behavior.

One of the most successful Friday programs was the one at which Mr. B., Chairman of the Art Department, talked on "An Artist Expresses What He Sees about His Time". Mr. B. used slides, original drawings and sculptures to illustrate.

Dr. P. became a regular part of the Friday enrichment program in order to involve the school psychologist more directly with all the students. Each month he discussed topics which appeared to interest the students from the psychological point of view. His first program, INTELLIGENCE--WHAT IS IT--stimulated discussion and drew a varied student response. He was invited to lead bi-monthly informal discussions with students.

The Friday programs were regarded by most of the students as the curriculum highlight of the week. Students of the program who had other classes requested permission to attend these enrichment sessions.

Additional curriculum highlights included:

The continuation of the mobile library; dramatization by the students of OUR TOWN and RAISIN IN THE SUN; the writing of a class magazine; writing short stories and/or essays, poems by each student; oral reports on biographies read outside the classroom; increased reading of fiction and non-fiction during out-of-class time; a guest speaker in the English classes, Dr. P., who explored the idea of "crazy" as it related to THE CATCHER IN THE RYE and the students' concept of "craziness"; word games; use of illustrated books from the American Heritage series.

The team in general felt a qualitative change among the students within each class. There was more discussion; more tolerance of each other's opinions, and in many instances, they attempted to tackle ideas and thoughts in their discussions.

The teacher kept his daily lesson plans and records for the purposes of this study--anecdotes from the class and student seminars.* This record served as a guide to future lesson plans, and was one of the reasons why the team decided to change our last six week unit of 1967 into a genuine humanities approach to teaching.

Since curriculum must be an ongoing process, the team, during the faculty seminar discussions, felt present curriculum did not create enough excitement to challenge the students. We were still bogged down in the lock-step

*See Appendix "B"

methods of teaching subjects and facts, rather than stimulating the student to think and possibly create. Out of this, came the theme PROTEST AND CHANGE, as a six week teaching unit in which, it was hoped, the students would become so involved, their imagination so stirred, that they would be impelled to learn. We aimed to incorporate and relate the natural developmental urge of adolescents to protest against the establishment, not as an impediment to learning, but to examine protest as a force for growth.

For six weeks, Tuesday afternoons were devoted to this six week pilot program. If this approach was successful in the classroom, the entire twelfth grade curriculum in both subject areas would be geared to the involvement of not only the Social Studies and English Departments, but also the Music and Art Departments.

The theme used the era of the twenties, thirties and forties and related it to the present in literature, economics, music and art to demonstrate "live" how protest brings change throughout life.

The PROTEST-CHANGE outline is below:

Opening lecture by school psychologist
Art As a Protest - Mr. L., Art Department
Movie - The Jazz Age - THE GOLDEN TWENTIES - 67 minutes in length. Mr. O'D. prepared the lesson for the time remaining. Discussion took place before the film, using the economic areas as a basis.
Movie - VERY NICE, VERY NICE - 12 minute presentation. Film reflected the 1960's. Social Studies teachers discussed the "Jazz Age" economic problems in relation to the economic problems of the 1960's. English classes discussed a short story by Hemingway, and one by F. Scott Fitzgerald.
Social Studies classes continued discussion of the twenties to Roosevelt Era. Record by Honegger--PACIFIC 231 was played and discussed.
Prior to Stratford trip to the Shakespearean Theatre in Connecticut to view THE MERCHANT OF VENICE, Social Studies classes discussed economic and money problems of medieval Europe and Italy--usury, etc. English classes read and acted out excerpts from play, THE MERCHANT OF VENICE.
Classes met separately to discuss THE GRAPES OF WRATH in English classes, while Social Studies classes discussed the twenties and the depression era. The August 1965 volume 16 and November 5 issue of THE AMERICAN HERITAGE SERIES were used as texts.
Movie - BANK HOLIDAY - 1933 - 27 minutes in length. Discussion continued in individual classes on THE GRAPES OF WRATH and the Roosevelt Era.
The Art Department was invited to participate in a

presentation of "School of Realism" in art in America and Europe, and a discussion of the Federal Art Project.

Movie - THE INHERITANCE - 60 minutes in length--with the main theme of trade unions: The Social Studies teachers were responsible for leading the subsequent discussion periods concerning trade unions, while English classes continued discussion of THE GRAPES OF WRATH.

Movie - THE RIVER - 31 minutes in length. Two showings were suggested in order not to make too many inroads in individual class time

Individual classes - Social Studies - Federal participation in the country's economic life --A.A.A., F.C.C., etc. while continuing THE GRAPES OF WRATH in English classes--all within the same social era.

Movie - MEMORIES - A satire of prominent figures of the twenties--length 26 minutes. A speaker, Mr. M., and discussion period.

Movie - FIORELLO LAGUARDIA - 26 minutes in length. Discussion of New York City as compared to Syosset, and other Long Island communities.

Movie - THE GRAPES OF WRATH - Discussion followed the movie.

Throughout this unit references to the present were to be explored through the use of current material, as well as the students' own experiences.

Dissatisfaction with the team's role during the Monday and Wednesday third period seminar, resulted, after much discussion, in several important innovations. Individual and small group instruction and help in writing techniques were undertaken by the English teachers, while the Social Studies teachers conducted special project workshops involving visual aids.

A special group project in film-making was undertaken by an art teacher, Mr. L. His appraisal follows:

FILM WORKSHOP

"The students in the Film Workshop chose as their subject, "School is a Prison", and developed a script based on their attitudes toward school as a jail, and the teachers as jailers. Part of the script deals with scenes in which the students are in school in body only, but 'drop-out' mentally without the teacher's knowledge.

"Because many of the students were extremely camera-shy; it was suggested that they wear masks. This suggestion was rejected completely, very likely because the students felt it was too close to the truth of what they were already doing; that is, wearing masks in school. They wanted to contrast the jail-like feeling of school with the freedom of surfing. Therefore, it was suggested that the second part of the film be made at a nearby beach.

"While the making of the film was viewed by the students as everything else in school is viewed, that is, as something you 'have to do'---there were moments when some students became involved in the act of making a film. When this happened, the students put aside their role of incompetence and stupidity long enough to do the job at hand.

"Sometimes the goal for doing the job was negative. For example: One girl was so camera-shy that she volunteered to be the camera operator so as to avoid appearing on the film. However, as soon as she committed herself to this, for whatever reason, she had to function on a high level of competence and intelligence which successful camera work demands. She was the only volunteer to do something that some children would consider to be fun. Why is there so little enthusiasm for doing anything, even the things that can be fun? Fear of doing them the wrong way, of making mistakes seems to take the joy out of doing anything in school, and of course, as Holt points out, there is the denial of their intelligence to their jailers.

"The making of the film brought many of these attitudes to the surface in a very clearly defined way, because they had to be faced and worked out one at a time as they came to the surface, and actually got in the way of some aspect of the film-making process. The first stumbling block was the refusal to think at all. This had to be overcome in order to get an idea for the film and to develop it. In this first endeavor, the teachers and advisor did too much of the thinking. Although the students contributed some of the key ideas, they could not develop them far enough. The next hurdle was to get these extremely self-conscious boys and girls to move and act in front of a camera. This took time and was only partially successful--but they did do it.

"The camera, by its very nature, focuses on something and records how that thing behaves. When the students are both behind and in front of the camera, they are forced to look at themselves and their fellow students in a new way."

Student Seminar Activities:

Last year the seminar groups were smaller; it was decided to increase the number of students in each group to "spark" the discussions. Seminars were held again twice weekly, but the free time was devoted to the workshops and help described above.

The students were now familiar and "at home" with the teachers. Many hidden reserve barriers were broken down.

Therefore, the initial purpose of establishing rapport between pupil and teacher was achieved during the first year. It was time to begin a more structured seminar which had, as its main purpose, the use of classroom materials, interests and extra-school interests as bases for breaking down the unconscious will of "not to learn". As one teacher evaluated the attitude of the students to seminar by saying, "Resistance to seminar has almost withered away". Another teacher felt the seminar was acceptable and did not "threaten" them; while still another teacher felt the seminar program helped only some to achieve a slight glimmer of pride in their school work.

Structured sessions proved to be of use in stimulating thought and discussion. Students reacted in a positive fashion and participated with more vigor when discussions were centered on poetry, films, news, etc. The teachers tried to encourage the students to take the lead in producing material for discussion for future seminars. Topics based on Hayakawa's "Language in Thought and Action"; "Summerhill"; a variety of records, news; the magazine, "Scope" were all selected by the teacher leaders.

Intense feelings continued to be expressed about school; the "system" and their self-deprecation of feelings of futility. There was definitely discerned a greater cohesiveness or in-group identification among seminar students.

Faculty Seminar Activities:

The Tuesday and Thursday afternoons devoted to faculty seminars continued with main emphasis on:

1. Discussion of individual student problems
2. Reactions of faculty and observations concerning seminars, curriculum and enrichment programs
3. Planning of innovations such as Protest-Change Unit and Family of Man to be integrated to the curriculum
4. Discussions of general psychological problems of adolescence as they relate to our students

Some of the results of these seminars included:

1. The utilization of the P.T.A. open house as a special meeting in which parents of our students were invited to meet the "Team" and ask questions
2. The decision to affect a greater understanding of the child through the parent by beginning afternoon group meetings with some of the parents
3. The necessity to change the approach to curriculum from the traditional subject oriented to experiential oriented approach
4. The desire to reappraise the whole concept of student evaluation---grading

5. The closer coordination between the attendance teacher and classroom teacher and guidance counselor to decrease absence from school
6. The further exploration of cooperative work - study programs as a stimulus to school motivation through changes in the school day
7. The probing discussions of individual students in an effort to "reach" each student. Discussion and connection between class and seminar as they relate to students' personal lives and attitudes
8. The planning of the ongoing enrichment program and students' reactions to these sessions

The professionals regarded the faculty seminar discussions vital to their own growth. These sessions not only ventilated the frustrations of working with these youngsters, but helped them to clarify their own relationships as teachers with the "difficult to teach" students. As one team member stated, "God bless our faculty seminar". Several general education areas were explored at these seminars:

1. Group dynamics
2. Perception, in terms of attitudes--why students react--perceptual dissonance, consonance
3. General personality development of the adolescent--their reality levels

School Psychologist Activities:

Faculty seminars continued with discussions regarding all phases of the program. Individual student problems were discussed with reference to past behavior and present adjustment. Another major topic continued to be curriculum development with particular emphasis on a comprehensive unit on Protest-Change, which focused upon the use of protest as a means of effecting constructive modifications of status quo rather than as an isolated gesture of rebellion. The topic, of course, had in mind the characteristic mode of the adolescent - protest, which was put into perspective as both an individual and social process.

Individual contacts with students in the program increased each year, and additional self-referrals occurred as our students became more familiar with the work of the school psychologist.

This familiarity resulted from greater "neutral" contact with the school psychologist with consequent decrease in distortions and anxiety regarding his role. The first opportunity arose when the psychologist was invited to discuss the main adolescent character in an English reading assignment. This led to initiation of two information programs with the psychologist. One program was part of the regular Friday meetings where all students were assembled for enrichment activities. The psychologist had spoken to the group on a variety of topics such as, "Psychology - the study of behavior", "Intelligence - what it is", and "Aggression".

This was followed by a seminar discussion group which students volunteered to attend. The format was open-ended, with students raising questions on a variety of topics of concern to them - e.g., parent and teacher attitudes, assignments in school, motivation and tests, etc. These meetings had immense potential to assist students to develop insight into their behavior and they became a permanent fixture of the program.

Remedial Reading Program:

The reading consultant reapproached all the students reviewing:

1. Reading instruction that had taken place
2. Noting the extent of progress that these students have made
3. Considering what types of further reading help was needed by these students

An analysis revealed that:

1. Most students needed help in one or more of the following areas: Vocabulary development, comprehension skills, study skills, rate of speed.

   The students had been grouped according to their reading levels and received instruction twice weekly. Materials used were on the individual pupil's reading level.

2. Generally most students made significant progress in the remedial reading program. These conclusions were drawn, not only from test results, but from close contact with, and observation of, each student's work.

3. Follow-up program called for two kinds of reading instruction approaches:

   a. Continued basic instruction with emphasis on particular reading skills, use of materials on the individual student's latest reading level

   b. Modified power reading program. Although work was done in vocabulary and comprehension, new reading skills were added. Machines were used to improve reading rate. Critical reading, recognition of "slanted" writing, and propaganda were explored.

Materials used to improve reading skills:

SRA, Better Reading, Book 2
Teenage Tales, Book 4
SRA, Organizing and Reporting Skills
Using the Context
Listen and Read Tapes
Tactics in Reading
Using the Context - E and F
McCall-Crabbs Standard Test Lessons in Reading - E
SRA, Better Reading, Book 1
Teenage Tales, Book 2

Guidance Counselor Activities:

At the start of this program, most of the counseling was done on an individual basis. Some guidance activities, mainly orientation to high school, were attempted in groups of twenty to twenty-five. The major arena of the counselor was small group work, supplemented with individual counseling during the latter part of the program.

Group work offered the possibility for reaching more students, on a more meaningful level, in the time allotted for counseling. Many of our boys and girls were other-directed. Integrity is a social as well as a personal matter, and there was greater opportunity for growth and fulfillment in the process of confronting others. It was an opportunity to use other students' confusions, frustrations and conflicts toward a wholesome experiencing of self. In group work, the counselor was a mobilizer of resources, was better able to play a mediating role between faculty, students and administrators.

A vocational unit was introduced during the second year of the program. Varied approaches and small groups were the key to what was provocative and produced interest.

Phase I: Individual conferences to help student assess strengths, weaknesses, interests; and to select courses, relating these to short and long term goals. To supplement this, English teachers were assigning autobiographies to further focus student attention on self and the relationship to educational and vocational planning.

Phase II: Students in small interest groups met with counselor to become familiar with resources available and to prepare for career conference.

Phase III: Career conference planned to last three periods using resource persons who met with varied interest groups.

Phase IV: Field trips, again with small groups, and specific vocational interest to places of pertinence.

A pilot group of eight student-volunteers met to discuss topics of interest to them. Six sessions were planned, and the group expanded to include other interested students in the program.

Also, all parents were invited to meet to discuss common problems. This program with parents included evening sessions. Eight responded and attended these meetings.

Throughout the remaining time of the program students were individually guided as they planned for further education. The goal was to help them work toward realistic, challenging and specific schools.

As a group, academic records improved noticeably. There were more A's and B's, and fewer D's and F's. More of our students made the effort to face some of the realities of their problems; to use resources available to them.

Staff teamwork cracked a case of chronic absenteeism. We invited the attendance teacher to a meeting, and staff inquired about home backgrounds of worst offenders. The dean, Mrs. K., teachers, counselor and homeroom teacher all put pressure on one of these students and his family. In a dramatic confession, the student admitted malingering, etc. to escape school failure. This was a shock to his parents who used the absences to explain why he wasn't an honor student! This pattern or evasion and ducking responsibility had been ingrained since seventh grade and the truth was particularly painful to his mother, since she realized how she contributed to the problem.

Plans were made to apply the same techniques in the hope of cracking three other cases of chronic absenteeism.

Librarian Activities:

The greatly increased enrollment in the high school made it impossible for the librarian to give the time required to the program. There were several phases of the program which had to be omitted due to lack of time--attendance at afternoon sessions either on curriculum planning or on the students and their problems. These valuable sessions assisted the librarian in working with the youngsters individually in the library, and for the preparation of book talks. It was difficult as a result to direct library materials into the program curriculum as easily as during the initial period of the program.

Book talks on a variety of subjects became a definite part of the curriculum. The biography presentations correlated a study of biography as a literary form with a social studies report on an individual in American history.

Whenever Mrs. R. gave reading assignments in outside materials, the librarian came into the class with a selection of appropriate titles. Overcoming the "library phobia" was an important phase of the program. This teacher's classes were ready to go into the library and choose books independently without prior selection on the part of the librarian.

Curriculum - Family of Man: Humanities Program

It was decided to broaden and enrich the curriculum by approaching it from the viewpoint of the family of man. Man, as the measure of all things, might be the fundamental philosophy guiding an approach to the creation of the twelfth grade humanities curriculum. To explore with our students the hows and whys of man, and his relationship to his fellow-men within the family, the community, the state and the world, would be our purpose to give meaning and direction to life today.

Beginning with the basic family structure and spreading outward, the curriculum for track three surveyed the family of man as it developed from individuals in constantly expanding circles, until it encompassed the world with all its complexities. The family was initially discussed as a small social group, and the origins of the concepts of -

1. Freedom and Responsibility and
2. Power and Authority, each to be examined on different levels of human activity.

The team of teachers who wrote the curriculum planned as minutely as possible, on a day to day basis within the time block. Emphasis was placed on a project oriented curriculum involving the students as much as possible. It was:

1. Geared to factual material more than concepts--values as well as concepts arrived at through facts
2. Geared to contrasts--past vs. present; older generation vs. present generation, etc.
3. Geared more to the non-reading approach--greater use of audio-visual aids
    a. Radio in class
    b. Newspapers (special issue of school magazine prepared by students)
    c. Magazines, etc.
    d. Movie making by students
    e. Projects involving local elections
    f. Music programs by students

Curriculum Outline

Introduction - The Family of Man

A. The motivating device was a small unit on family relationships; using LORD OF THE FLIES. Full class discussions on problems of responsibility--The child's as well as the parents'. prepared the groundwork for the ensuing units of work.

Freedom and Responsibility

A. Communication
    a. Mass Media Explosion
        Influence it exerts on the individual; on our values and our changing mores; influence on adolescent attitude towards sex

B. Over-Population (Anthropological and Sociological Approach)
    a. Changing role of childhood from previous generation.
    b. Different societies' treatment of childhood--i.e., India, Japan.
    c. Role of adolescent in Syosset and suburban communities, as contrasted with the city child.
    d. Need for planning--economic, political and social--using individual and nation.

C. Consumer Responsibility
    a. Economics of Adolescence
    b. Adolescent as a "dupe". How advertising is geared to him. Conflict between family and adolescent.
    c. Examples of exploitation of adolescent--credit, mass media--advertising.

Authority and Power

A. Foreign Policy of the U.S. with emphasis on the use and misuse of power
    a. World War I
    b. World War II
    c. Cold War World
    d. Vietnam

The curriculum included not only the content material, but daily goals, enrichment techniques, etc. The content also was closely structured and included quizzes to be given at a stated time with the object of building up a tolerance for frustration. Greater uses of the tutorial method were made with small conference groups, buzz groups, small research projects, etc.

Also, since many of the students needed the subject Health to graduate from school in June, 1968, it was decided to schedule seminar for A and B weeks on Monday and Tuesday. Students met with their "teacher seminar leaders" once each week and with Dr. P. on a second day.

The use of the seminar was shifted in the third year. At first, it was used to provide a setting where our students could learn to express ideas and opinions without fear of ridicule and error, since seminar was based on discussions which revolved about their personal lives. This allowed them to speak with teachers and peers, communicate facts and reactions, formulate and verbalize thoughts with minimum experience and expectation of failure. In the first year, the focus was shifted from that of encouraging positive scholastic experiences to providing insights into their avoidance of failure oriented behavior. The other purposes of seminar which concerned enrichment and elaboration of classroom curriculum work were continued.

The merit of granting course credit for seminar was discussed over two years among the program faculty. It was their opinion that the seminar should carry a half-point credit. The track three students were particularly oriented to tangible and concrete rewards and evidence of achievement (e.g., credit, tests, grades). They believed they were working for nothing in seminar while they could be in other courses where credit was given. If credit was given, then the student could be graded and receive feedback regarding the quality of his performance in seminar, which could then serve for corrective behavior. Without credit and grades, seminar became too unrelated. While many students were willing to participate, they resented what they viewed as a lack of tangible reinforcement.

Friday enrichment programs became part of the first period on an every other week basis, and more effort was devoted to developing a sense of understanding among the students of the purpose of these programs. The team planned more completely for the programs by thorough class discussion and increased student participation.

The guidance counselor and the teachers rescheduled each student in periods two and three in light oftheir knowledge of the students' academic activities, motivation and peer associations. The reading consultant spoke to all the students in an attempt to obtain more volunteers for remedial reading.

VII. c. Instruments Used:

1.) Intelligence - Otis Test of Mental Ability
Form: Gamma EM, Gamma FM

2.) Achievement - Sequential Tests of Educational Progress (STEP)
Form: 2A, 2B

3.) Motivation - N-Ach Test (Need Achievement Test, McClelland et al)
Pictures: A, B, G, H (See Appendix A)

VII. d. Procedures for Data Analyses:

Beginning of the Study

1.) In order to obtain a more stable estimate of each subject's intelligence, the mean score of two testings was employed as the best estimate of the IQ of each subject. These scores were, in turn, converted into Z scores ($Z=\frac{X-X}{S}$).

2.) STEP scores (English, Social Studies, Mathematics and Science) were converted to standard scores and correlated with IQ (Pearson r). Regression equations predicting achievement scores from IQ scores were developed making it possible to determine for each subject whether he performed better or poorer than expected based upon his combined IQ score and to describe how much each subject deviated from the "expected" score. A large deviation was defined as one equaling or exceeding ± 1 ^{s}Est. Y.

3.) Final grades in English, Speech, Social Studies and Mathematics were converted into Z scores and their correlations with IQ obtained. Regression equations predicting end-of-year grades from IQ scores were developed, making it possible to determine for each subject in the experiment whether he performed better or poorer than expected based upon his combined IQ score and to describe how much each subject deviated from the "expected" score. A large deviation was defined as one equaling or exceeding ± 1 ^{s}Est. Y.

4.) The ratings of three judges of responses on the McClelland N-Ach Test were correlated (Rho).

Measures were obtained at the beginning of the program, end of the first year, and end of program. t-ratios were used to evaluate differences between groups.

5.) End-of-the-year grades in Speech*, English, Social Studies and Mathematics were converted to Z scores, t-ratios were used to compare differences between means and the significance of the differences.

*Tenth grade English consisted of one semester Speech, one semester English.

6.) End-of-year-grades (1965-66) were correlated with IQ score (Pearson r).

7.) Regression equations calculated end-of-year grades (1965-66) based on IQ scores. Fisher exact probability test used to evaluate differences between number of students with "good" and "poor" performances.

End of Study

8.) Final grades of all students for a given subject* were grouped together and the overall median grade was determined. The number of students in each condition scoring above and below the median was tabulated and the differences were evaluated statistically in terms of the Chi Square test of independence.

9.) Scores from the twelfth grade STEP testing were treated as above.

10.) Attendance (number of days absent) data were treated as above.

11.) Final marks from grades four, five and six were obtained on all subjects for whom they were available. A numerical score was assigned to each grade obtained by each individual over the three year period. Each subject's scores were summed yielding an overall index of performance during the three year period. The numerical values assigned to each letter grade were as follows: A=4; B=3; C=2; D=1; F=0. An individual obtaining straight A's in all five subjects for each year obtained a cumulative score of sixty, (60) whereas a person obtaining a mean C throughout the period received a cumulative score of thirty (30).

Eleventh grade mean Z scores for each subject were converted to ranks as were cumulative scores over the fourth to sixth grades. The rank order correlation between the two sets of scores was obtained for each experimental condition.

*Mathematics excluded due to lack of sufficient number of students taking subject.

VIII. Results:

1965 - 66

Correlation and prediction equations based upon converting achievement scale to standard scores and correlating with IQ.

TABLE i

Correlations between IQ and Achievement Test for each group

GROUPS	r	s_x	s_y	s_{Esty}
A (With Seminar)	.55	8.25	.71	.59
B (Without Seminar)	-.11	7.75	.65	.65
C (Control)	.28	10.97	.88	.84
D (Vocational Program)	.26	7.61	.93	.90
Total	.32	8.98	.84	.80

Note that the subjects in Group B may be considered, as a group, more clearly underachievers since the correlation of their achievement scores with IQ is slightly negative, approaching zero.

The subjects in Group A may be considered a more "normal" achieving group since the correlation of .55 is approximately what one would expect for a "normal achieving" group.

Defining an underachiever as a person whose obtained score is one ^{s}Esty or greater below his predicted, and an overachiever as one whose obtained score is one ^{s}Esty or greater above his predicted, we obtain the following breakdown by groups:

TABLE ii

4 x 3 Contingency table showing distribution of over and underachievers in all four experimental groups

	Experimental	Group B	Control	Vocational Program	
Under-achievers	0	7	2	2	11
Normal Range	23	19	14	12	68
Over-Achievers	4	1	3	4	12
	27	27	19	18	91

Although the overall distribution of the various achievement groups does not significantly differentiate the four experimental groups, it is important to note that Group B--which the correlational analysis showed to be atypical--contains a far greater number of underachievers than any other group. Also, the experimental group, with seminar, contains no underachievers, with regard to the achievement test, as defined in this study. This difference between groups A and B could have important implications relating to the interpretation of any results obtained in the study, e.g. possibility of regression toward the mean, floor effect, etc.

Analysis of the McClelland N-Ach ratings (Rater Reliability)

TABLE iii

Rho correlations among the three raters (GP, BB, and LG) on the administration of the McClelland N-Ach Test

	GP vs. BB	GP vs LG	BB vs. LG
r_{rho}	.61	.64	.64

Although all three correlations are significant at well beyond the .01 level, the inter-rater correlations are not as high as they might ideally be. Indeed, the above correlations are spuriously high since there were a large number of tied ranks, a phenomenon which tends to exaggerate the extent of the relationship. It is recommended that the raters make an additional effort to standardize their rating procedures. Further, since there seems to be some difficulty in defining "a standard of excellence" it is suggested that consideration be given to providing two ratings of each subject; one indicating whether the subject shows any aspiration for improvement and the second conforming to McClelland's definition of N-Ach. It is quite possible that, for track three students, any indication of a desire for improvement is of significance and, by setting the criterion too high, information of some importance is lost or obscured.

TABLE iv

Before-measures - combined ratings of three raters

	$\bar{X}$	t ratios vs.		n
		B	C	
Cond. A	2.88	1.12	.81	14
Cond. B	2.11	▨	.14	24
Cond. C	2.00	▨	▨	9

It can be seen that the initial differences among the groups were small and do not approach statistical significance.

TABLE v

Before-after difference measures and second-order Student t-ratios comparing before-after changes

	$\bar{X}$	t ratios vs.		n
		B	C	
Cond. A	-1.33	-.93	-1.22	14
Cond. B	- .51	▨	- .80	23
Cond. C	.21	▨	▨	8

Although the two experimental groups showed slight drops on their ratings in the after condition, none of the changes approach statistical significance. Furthermore, the second-order t-ratios comparing the magnitude of the changes among the three experimental groups do not approach statistical significance.

Analysis of Objective Test Results - Before-measures

TABLE vi

Means and standard deviations of the four groups on IQ measures obtained prior to the study

Condition	$\bar{X}$	s
A	100.15	8.25
B	100.04	7.75
C	102.39	10.97
Vocational Program	93.83	7.61

It can be seen that the three primary groups (A, B, and C) are extremely closely matched on IQ. None of the differences approach statistical significance. However, the Mean IQ of the Westbury (Vocational Program) group is significantly lower, at the .05 level, than the three experimental groups.

The STEP Tests

In the previously-reported correlational analyses, all the scores of the subjects in the four conditions (three conditions plus the vocational group) were converted to z scores. Shown below are the mean z scores and standard deviation of each group on all four scales of the STEP test.

Table vii on next page

TABLE vii

SCALE ON STEP

Condition		English	Social Studies	Math	Science	n
A	$\bar{z}$	.119	.143	.591	.152	27
	s_z	.94	.77	1.69	1.08	
B	$\bar{z}$	.003	-.353	-.898	-.167	27
	s_z	1.06	1.30	1.68	.90	
C	$\bar{z}$	-.058	-.137	.447	.235	19
	s_z	.91	1.28	1.48	1.13	
D	$\bar{z}$	-.068	.404	.027	.343	18
	s_z	1.00	1.20	1.61	1.36	

In agreement with the previously reported correlational data, subjects in the B condition may be seen to be generally poorer performers than their counterparts in the remaining conditions. This disparity is most pronounced on the Math scale where the B subjects performed significantly poorer than those students in the three remaining groups. None of the differences on the three remaining scales are statistically significant.

After-measures

Since the After measures were not employed in a correlational analyses, they were not converted to z scores. Shown below are the separate analysis of three different scales: Reading, Social Studies, and Writing (Math was not included in the second testing).

Social Studies

A single-variable three treatment analysis of variance was performed on the data to determine if there was an overall significant difference among the means. These results are summarized below:

Source of Variation	df	Sum of Squares	Est.Var.	F	P
Between	2	3523.6	1761.8	4.18	<.05
Within	69	29,083.1	421.5		

TABLE viii

The means and t-ratios comparing conditions A, B, and C are shown below:

	$\bar{X}$	t ratios vs. B	t ratios vs. C	n
Cond A	32.29	.73	2.84*	28
Cond B	27.78		1.80	18
Cond C	16.42			26

*significant beyond .01 level.

Note the large drop-out of students taking the second test in the B condition. This loss of one-third of the sample must be borne in mind when making any attempt to interpret these data.

Reading

TABLE ix

Shown below are the means of the three groups on the Reading scale:

	$\bar{X}$	n
Cond A	31.33	27
Cond B	27.93	18
Cond C	23.32	26

The analyses of variance of these data does not approach statistical significance. Consequently, no separate t-ratios were calculated.

Writing

TABLE x

On the next page are the means of the three groups on the Writing Scale of the STEP test

TABLE x

Condition	$\bar{X}$	n
Cond A	26.88	26
Cond B	29.11	18
Cond C	18.35	26

Since the analyses of variance of these data does not support the hypothesis of a difference among the group means, separate t-ratios were not conducted.

Analysis of Before-After Measures

Since there were clear indications of initial differences among the experimental groups--particularly condition B-- an analysis of the before-after change in percentile ranks was conducted. Since the results were most unusual and unexpected, the analyses will be presented in some detail.

TABLE xi

Before-After change with three groups combined

	Mean change in percentile rank	n	probability
Reading	-13.40	67	$< .001$
Writing	-12.58	67	$< .001$
Social Studies	- 8.01	67	$< .010$

The table above shows the mean loss in percentile rank from first to second testing of all three groups combined. The statistical significance of the loss was evaluated by the use of the Sandler A test (which is algebraically identical to the Student t-ratio with correlated samples). That these losses are systematic and almost certainly not due to chance is shown by the probability values which, on two instances, are considerably below the .001 level of significance.

TABLE xii

Mean losses for each experimental group and the associated probability values

Condition		Reading	Writing	Social Studies
A	Mean loss	4.13	8.21	1.96
	P	non significant	$< .05$	non significant
B	Mean loss	16.04	14.62	12.00
	P	$<.001$	$>.01$	$>.001$
C	Mean loss	22.47	15.65	10.47
	P	$<.01$	$<.01$	$<.107.05$

It will be noted that the B group evidenced clearly statistically significant losses on all three scales of the STEP test; the C group showed significant losses on two of the scales and a near significant loss on a third; and the A group showed a significant loss on only one of the scales.

The first of the two tables presented above show that there is a statistically significant loss on all three scales of the STEP test when all experimental groups are combined. The second table demonstrates that this loss is statistically significant within the experimental groups for certain scales. The only question remaining is whether or not the loss is differential, depending upon experimental conditions. The results of a second-order Student t-ratios comparing each condition with each remaining condition are summarized in the table on the next page.

TABLE xiii

		A vs. B	A vs. C	B vs. C
Reading	Diff. between means	11.91	18.34	6.43
	p value	$< .05$	$< .01$	n.s.
Writing	Diff. between means	6.41	7.44	1.03
	p value	n.s.	n.s.	n.s.
Social Studies	Diff. between means	10.04	8.48	1.53
	p value	n.s.	n.s.	n.s.

The Analysis of Student End-of-Semester Grades for the Academic Year 1965 - 1966

Introduction:

In this section of the statistical report, the following questions are raised.

1. Is there an indication of a differential effect of experimental condition upon the end-of-semester grades of students in Speech, English, Social Studies and Math?

Can any differences in performance among the three experimental conditions be related to differences in other dimensions of variation (e.g., IQ, McClelland N-Ach scores, attendance records, or sex)?

Procedures:

In order to obtain a more stable estimate of each subject's intelligence, a second IQ test was administered to all students in the study. Accordingly, the mean score based upon two separate testings is employed as the best estimate of the IQ of each subject. These scores were, in turn, converted into z scores ($Z = \frac{X-X}{s}$). Similarly, the end-of-semester grades in Speech, English, Social Studies, and Mathematics were converted into z scores and their correlations with IQ were obtained. Regression equations predicting end-of-semester grades from IQ scores were developed, making it possible to determine for each subject in the experiment whether he performed better or poorer than expected based upon his combined IQ score and to describe how much each subject deviated from the "expected" score. For purposes of this study, a large deviation was defined as one equaling or exceeding $\pm 1\ s_{Esty}$.

Finally, subjects showing large deviations were identified and various hypotheses were investigated relating factors (IQ, attendance records, etc.) to good and poor performance.

Comparison Among Means of Experimental Groups

Speech - Table xiv shows the mean z score of each experimental group (diagonal cells), the t-ratios comparing the significance of the differences, and the statistical significance of the observed differences. It can be seen that the best performance was achieved by the seminar group and the poorest achievement was by the controls. The difference between these two groups is significant at well beyond the .01 level.

TABLE xiv

Condition

	A	B	C
A	.419	1.93	3.50
B	n.s.	-.121	1.24
C	<.01	n.s.	-.483

Mean end-of-semester grades in Speech (converted to z scores), t-ratios comparing the differences between means, and the significance of the differences.

English - Table xv shows the various comparisons of the end-of semester grades in English. As with Speech grades, the seminar group performed significantly better than the control subjects, with the non-seminar subjects (Group B) occupying an intermediate position.

TABLE xv

Condition

	A	B	C
A	.388	1.60	2.87
B	n.s.	-.061	1.47
C	<.01	n.s.	-.501

Mean end-of-semester grades in English (converted to z-scores), t-ratios comparing the differences between means, and the significance of the differences.

Social Studies - Table xvi showing the comparisons among the experimental groups on the Social Studies end-of-semester grades, reveals no significant differences among the means. Unlike the previous comparisons involving Speech and English grades, the control subjects obtained scores slightly higher than those in Group A (seminar). However, the difference does not approach statistical significance.

TABLE xvi

Condition

	A	B	C
A	.052	1.18	.87
B	n.s.	-.277	1.99
C	n.s.	n.s.	.321

Mean end-of-semester grades in Social Studies (converted to z-scores), t-ratios comparing the differences between means, and the significance of the differences.

Mathematics - Table xvii shows the comparisons among the experimental groups on tenth grade end-of-semester marks. These comparisons should be interpreted with caution since many students did not enroll in tenth grade mathematics. Furthermore, the attrition is differential. In Group C, 28% of the students failed to take tenth grade math, 26% in Group B, and only 12% in Group A. If it may be assumed that the poorer mathematics students tend to avoid taking tenth grade mathematics, the differential drop-out would tend to operate to the disadvantage of the subjects in the seminar condition. In spite of these considerations, the differences among the group means are small and do not approach statistical significance.

TABLE xvii

Condition

	A	B	C
A	.045	.96	.51
B	n.s.	-.240	1.30
C	n.s.	n.s.	.222

Mean end-of-semester grades in Mathematics (converted to z-scores), t-ratios comparing the differences between means, and the significance of the differences.

Summary

Based upon the comparison of group means, we may conclude that the seminar group performed significantly better than the control students on the end-of-semester grades in both Speech and English. The no-seminar group did not perform significantly better than the control group on any of the end-of-semester grades.

Correlation Between IQ and End-of-Semester Grades

Table xviii shows the correlations between the combined IQ scores and the end-of-semester grades. It can be seen that the correlations are all quite low and do not differ significantly from zero.

TABLE xviii

	Speech	English	Social Studies	Preceding Three Combined	Math
Pearson r	.16	.20	.14	.13	.12

Even allowing for some attenuation of correlation due to truncation of range, the correlations are exceptionally low. It will be noted that the correlations are considerably lower than previously reported between IQ and the STEP scale (Enriched Track 3 Program Mid-Year Report, February 1967). Since so-called achievement scales are, in fact, more nearly aptitude scales (see Burros: Mental Measurement Yearbook, 1965), the end-of-semester grades may be more validly regarded as achievement measures. In this light, then, the correlational data lend considerable support to the view that the subjects in this study are drawn from a population of underachievers.

Use of Regression Equations

The value of regression equations to assess individual performances is somewhat reduced by the low correlations between IQ scores and the various end-of-semester grades--the standard error of estimate is virtually undifferentiated from the standard deviations of the criterion variables. Nevertheless, it is still appropriate to raise the question, "Can we locate individuals whome we might identify as "good" performers (i.e., 1 ^{s}Esty above their predicted scores), and others whom we might call "poor" performers (i.e., 1 ^{s}Esty below their predicted scores).

These data are shown in connection with three end-of-semester grades (Speech, English, and Social Studies) as well as a combined score reflecting all three. Mathematics is not included in this analysis because of the aforementioned selective enrollment in tenth grade Math renders any interpretations questionable.

Speech - Scores equal to above +1 ^{s}Esty represent "good" performances; those below -1 ^{s}Esty "poor" performances.

It can be seen that the performance of ten students may be characterized as "good" and ten as "poor". When these scores are analyzed in terms of experimental treatments (see Table xix) some significant facts emerge.

TABLE xix

Condition

	A	B	C
number of scores +1 ^{s}Esty	7	3	0
number of scores -1 ^{s}Esty	0	6	4

Number of Speech grades equal to or exceeding ±1 ^{s}Esty.

First, seven of the "good" performers are found in the seminar group whereas none of the "poor" performers are found in this condition. Conversely, none of the "good" performers were found in the control condition whereas four of the "poor" performers are in group C. Group B, the non-seminar condition, occupies an intermediate position.

Employing the Fisher exact probability test to evaluate these differences, Condition A is found to differ significantly from Conditions B and C beyond the .01 level. Conditions

B and C do not differ significantly from one another ($p = .20$).

These facts are of considerable significance. It will be remembered that, when group means were compared, Conditions A and B did not differ significantly from one another. This result suggests that the experimental conditions did not uniformly benefit the subjects in Condition A but selectively benefitted some of the students. On the other hand, none appeared to have responded unfavorably to the conditions. In the final section of the report, an attempt is made to identify the factors leading to success.

Table xx presents a breakdown by experimental treatments. Again, Condition A differs significantly from both B and C, ($p = .05$) whereas Conditions B and C do not differ significantly from one another.

TABLE xx

Condition

	A	B	C
number of scores + 1 ^{s}Est y	6	3	0
number of scores -1 ^{s}Est y	1	6	3

Number of English grades equal to or exceeding ± 1 ^{s}Est y.

Table xxi presents a breakdown by experimental conditions. The only difference which emerges as significant involves the comparison of Condition B with Condition C. ($p < .05$).

TABLE xxi
Condition

	A	B	C
number of scores +1 ^{s}Est y	4	2	5
number of scores -1 ^{s}Est y	2	5	0

Number of Social Studies grades equal to or exceeding ± 1 ^{s}Est y.

Table xxii presents a breakdown by experimental conditions. Only the comparison between Conditions A and C achieve statistical significance ($p < .05$).

TABLE xxii

Condition

	A	B	C
number of scores +1 ^{s}Est y	5	3	0
number of scores -1 ^{s}Est y	0	4	2

Number of combined grades equal to or exceeding ±1 ^{s}Est y.

Factors Related to "Good" and "Poor" Performance

The names of the students in the various conditions whose performance equalled or exceeded ±1 ^{s}Est y on each of the three end-of-semester grade reports were identified. An attempt was made to determine what factor or factors distinguished "good" and "poor" performers. "Good" versus "Poor" performers were compared on IQ, need achievement scores, attendance records (absences and latenesses) and sex. It was found that none of the first three factors appeared to be in any way related to performance. The difference in IQ's, need achievement scores, and attendance records among "good" and "poor" performers were small and did not approach statistical significance. However, the sex variable is clearly related to performance. Table xxiii shows the breakdown by sex, of "good" and "poor" performers in each of the experimental conditions. To qualify for inclusion in the table, an individual had to equal or exceed +1 ^{s}Est y on at least one of the three final grades subjected to regression analysis. However, to maintain independence of frequencies, no individual was counted more than once, even though he may have exceeded the selection criterion on two or more final grade scores.

Inspection of Table xxiii reveals that, of the thirteen subjects in Conditions A and B who are "good" performers, twelve are female. Since only twenty-two of the fifty-two subjects in these conditions are female, this finding represents an enormous departure from chance expectation ($p < .001$). Collaborative evidence is seen in the sex of the nine subjects in group A and B who performed 1 or more ^{s}Est y below their predicted scores--seven are male ($p = .054$).

If the inference is correct that sex is the factor differentiating "good" and "poor" performers, we would not expect that the control subjects would evidence a similar differentiation by sex since control subjects received no special attention. In other words, we would expect the control subjects scoring 1 ^{s}Est y above or below predicted scores to be random with respect to sex. The findings are consonant with this hypothesis. Note that three of the five "good" performers in the control condition are female, but an equal number of the "poor" performers are female.

TABLE xxiii

	Condition					
	A		B		C	
	Male	Female	Male	Female	Male	Female
"Good" Performance	1	7	0	5	2	3
"Poor" Performance	2	1	5	1	1	3

Number of males and females in each experimental condition characterized as "good" and "poor" performers on at least one of three final grades.

The Analysis of Student End-of-Semester Grades for the Academic Year 1966 - 1967

Introduction

In this report the following questions are raised.

1. Is there an indication of a differential effect of experimental conditions upon the end-of-semester grades of students in English, Social Studies, and Math?

2. Can any differences in performance among the three experimental conditions be related to differences in other dimensions of variation (e.g., IQ, McClelland N-Ach scores, attendance records, or sex)?

Procedures

The procedures are the same as reported previously in the report of the end-of-semester grades for 1965 - 1966.

Comparison Among Means of Experimental Groups

English - The mean z score of each experimental group (diagonal cells), and the t-ratios comparing the significance of the differences, and the statistical significance of the observed differences.

TABLE xxiv

Condition

	A	B	C
A	-.066	.40	.01
B	n.s.	.074	.39
C	n.s.	n.s.	-.063

Mean end-of-semester grades in English (converted to z-scores), t-ratios comparing the differences between means, and the significance of the differences.

Unlike the tenth year end-of-semester grades, in which the seminar group performed significantly better than the controls, the differences among the groups are extremely small and do approach statistical significance.

Social Studies - Table xxv showing the comparisons among the three experimental conditions on the Social Studies end-of-semester grades, reveals no significant differences among the means. However, unlike the previous year, when the end-of-semester grades were somewhat higher for the control subjects (not statistically significant), the eleventh grade Social Studies grades were highest among the seminar subjects.

TABLE xxv

Condition

	A	B	C
A	.236	.80	1.51
B	n.s.	-.045	.94
C	n.s.	n.s.	-.284

Mean end-of-semester grades in Social Studies (converted to z-scores), t-ratios comparing the differences between means, and the significance of the differences.

Mathematics - Table xxvi shows the comparisons among the experimental groups on the end-of-semester grades in mathematics. These comparisons should be interpreted with caution since the grades are based upon a number of different courses (e.g., Business Arithmetic, Bookkeeping, Algebra, and Office Practice) and varying numbers of subjects took these courses.

TABLE xxvi

Condition

	A	B	C
A	.263	1.69	.26
B	n.s.	-.381	1.43
C	n.s.	n.s.	.161

Mean end-of-semester grades in Mathematics (converted to z-scores), t-ratios comparing the differences between means, and the significance ofthe differences.

Although the seminar subjects achieved the highest mean in mathematics, none of the differences are statistically significant. This finding is the same as reported following the tenth grade end-of-semester marks.

Summary

Based upon the comparison among group means, no significant differences were found among the three experimental groups on the end-of-semester grades in English, Social Studies, or Mathematics. This finding contrasts with those of the preceding year when the seminar group performed better than the control subjects in Speech and English.

TABLE xxvii

Correlations Between IQ and End-of-Semester Grades

	English	Social Studies
Pearson r	.13	.27

Correlations between IQ and end-of-semester grades in English and Social Studies.

Table xxvii shows the correlations between the IQ scores (based upon two testings) and the end-of-semester grades in English and Social Studies. It can be seen that the correlations are low positive of approximately the same magnitude found during the preceding year.

Use of Regression Equations

In the report on end-of-semester grades for the academic year 1965 - 1966, the use of regression equations was employed to define and identify "good" and "poor" performers, ie., individuals on standard error of estimate above or below their respective predicted scores. The same technique was employed in relation to the present set of end-of-semester grades.

When the "good" and "poor" performances are analyzed in terms of experimental conditions, the results summarized in Table xxviii emerge.

TABLE xxviii

Condition

	A	B	C
number of scores +1 ^{s}Est y	5	3	0
number of scores -1 ^{s}Est y	1	0	0

Number of English grades equal or exceeding ±1 ^{s}Est y.

It can be seen that five of the "good" performers were found in the seminar condition whereas none are found in the control group. The one subject whose performance could be classified as "poor" had entered the seminar group at the beginning of the eleventh year.

The breakdown by experimental treatments is given in Table xxix. Compared to the 1965 - 1966 end-of-semester grades in Social Studies, both the seminar and no-seminar groups showed an improvement relative to the control condition. However, the differences among the experimental conditions are not significant.

TABLE xxix

Condition

	A	B	C
number of scores +1 ^{s}Est y	5	5	1
number of scores -1 ^{s}Est y	3	3	1

Number of Social Studies grades equaling or exceeding ±1 ^{s}Est y.

Factors Related to "Good" and "Poor" Performance

In the previous analysis of factors related to "good" and "poor" performance it was found that comparisons in terms of IQ, need achievement scores and attendance records revealed no significant differences among the three experimental conditions. A similar analysis of the 1966 - 1967 end-of-semester grades were consonant with previous findings. However, the previous analyses had revealed a variable - sex - which was clearly related to performance. It was found that an exceptionally high proportion of "good" performers were female and, conversely, a high proportion of "poor" performers were male.

The similar analysis with the 1966 - 1967 end-of-semester grades is reported in Table xxx.

TABLE xxx

Condition

	A		B		C	
	Male	Female	Male	Female	Male	Female
"Good" performance	3	4	2	2	1	0
"Poor" performance	0	3	1	0	0	1

Number of males and females in each experimental condition characterized as "good" and "poor" performers on at least one of two final grades.

It is clear that the differentiation by sex did not carry over into the 1966 - 1967 end-of-semester grades. Approximately the same proportions of males and females could be classified as "good" and "poor" performers in the seminar and no-seminar conditions.

Analysis of Track 3 Students End-of-Semester Grades, Attendance Records, and STEP Results for the Academic Year 1967 - 1968

End-of-Semester Grades

The analysis of the end-of-semester grades for the 1967 - 1968 academic year involves the comparison among the three experimental groups in two subjects, viz., English and Social Studies. An analysis of the mathematics grades is not included in this report since so few students undertook mathematics that statistical comparisons would be virtually meaningless.

In addition, since the attrition rate of the control group was so great (six of seventeen left school), the final grades of eleventh grade students in track three were added to those of the control group in order to provide a larger reference group in terms of which to compare the performance of the experimental and the non-experimental conditions.

Procedure

The grades of all students for a given subject matter were grouped together, and the overall median grade was determined. The number of students in each condition scoring above and below the median was tabulated and the differences were evaluated statistically in terms of the Chi Square test of independence.

English

The median grade for the three groups combined was 74.76. The median grades for each group considered separately were: Group A (seminar), 75.00; Group B (non-seminar), 72.83; Group C (Control), 74.73.

Table xxxi shows the number of students scoring above and below the overall median in the three experimental conditions. It can be seen that the differences are small. A x^2 value of less than 1.00 does not approach statistical significance.

TABLE xxxi

		Condition	
	A	B	C
Above Median	11	11	23
Below Median	10	15	22

2 X 3 contingency table showing the number of students above and below the overall English median in three experimental conditions.

The results are consonant with the eleventh year end-of-semester grades in which the differences among the three groups were small and statistically non-significant. The seminar group obtained grades significantly superior to the controls only on the tenth year end-of-semester grades.

Social Studies

Table xxxii shows the comparisons among the three experimental groups on the Social Studies end-of-semester grades. The overall median grade was 74.77. However, unlike the grades in English, the median grades for each of the three experimental groups revealed sizeable differences. Group A achieved a median grade of 81.29; Group B, 77.00; and Group C a median of 71.62.

TABLE xxxii

	Condition		
	A	B	C
Above Median - - - -	16	16	15
Below Median - - - -	5	10	30

2 X 3 Contingency table showing the number of students above and below the overall Social Studies median in the three experimental conditions.

The X^2 value of 10.797 is significant at well beyond the 0.01 level and suggests real differences among the experimental conditions. More specifically, the differences between the Controls and both A and B are statistically significant. The difference between Group A and B is not statistically significant.

Insofar as it relates to Social Studies, the three year study suggests that the seminar group showed an improvement over the period which was not evidenced by the control subjects. The tenth grade end-of-semester grades evidenced slightly higher grades by the control subjects; the eleventh grade scores revealed a slight advantage for the seminar group; finally, the twelfth grade scores revealed the seminar group to be clearly significant over the controls (76% of students above the median vs. 33% above the median), with the non-seminar group occupying an intermediate position (62% of students above the overall median).

Attendance Records

The attendance records of students may be regarded as indirect measures of motivation. In general, excepting instances of genuine illness, students with high absentee records may be thought of as having poorer motivations to attend school than those with low absentee records. In the first two years of the study, the absence and lateness records of the three experimental groups did not differ appreciably from one another.

During the 1967 - 1968 school year, the median number of days absent for all three groups combined was 19.32. For each group separately the results were as follows: Group A, 16.00; Group B, 26.9; and Group C, 20.00. Table xxxiii shows the number of students above and below the overall median in each of the groups.

TABLE xxxiii

	Condition		
	A	B	C
Above Median - - -	6	15	22
Below Median - - -	15	11	23

2 X 3 Contingency table showing the number of students above and below the overall absence median in three experimental groups.

A X^2 test of significance reveals the difference between the A and B Groups to be significant beyond the 0.05 level. All other comparisons were non-significant.

Granting the assumption that absences are indirect indicators of motivation, it would appear that the students in the seminar group were better motivated to attend school than those in the non-seminar condition.

The lateness records were in the same direction as the absences. However, none of the differences were statistically significant. The overall median number of days late was 3.18. By condition, Group A obtained a median of 2.50 days; Group B was 5.79 days; and Group C was 2.94 days.

STEP Test Results*

The three scales on the twelfth grade STEP test are Reading, Writing, and Social Studies. The methods of analysis are the same as reported earlier in relation to end-of-semester grades.

Reading Scale

The median percentile rank, national norms, for the three groups combined was 11.50. Taken separately by experimental condition, the medians were: Group A, 18.25; Group B, 6.50; and Group C, 8.66.

Table xxxiv shows the number of students above and below the median in the three experimental conditions.

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*The results of the testing are reported for each of the experimental groups as originally constituted since the eleventh grade "Controls" who were added in the previous comparisons took the STEP tests, but norms were not available for their grade level (Spring testing). Therefore, it was decided not to include this data since the scores would have to be based on Fall eleventh grade norms or Fall twelfth grade norms.

TABLE xxxiv

Condition

	A	B	C
Above Median - - -	14	9	5
Below Median - - -	8	14	6

2 X 3 Contingency table showing the number of students above and below the overall median on the Reading Scale of the STEP.

Although the results show a greater proportion of students in Group A obtaining scores above the combined median than in either of the two remaining conditions, the X^2 value of 2.814 does not achieve statistical significance.

Writing Scale

The median percentile rank for the three groups combined was 21.17. The median for each group calculated separately was: Group A, 29.5; Group B, 18.67; and Group C, 22.25.

Table xxxv shows the number of students scoring above and below the median in the three experimental conditions.

TABLE xxxv

Condition

	A	B	C
Above Median - - -	13	10	4
Below Median - - -	9	13	7

2 X 3 Contingency table showing the number of students above and below the overall median in the Writing Scale of the STEP.

As with the Reading Scale, the median for the seminar subjects was higher than for each of the remaining conditions and the proportion of students scoring above the combined median was greater. Nevertheless, the X^2 value is not significant so that these differences should be regarded as suggestive rather than reliable.

Social Studies Scale

The median percentile rank for the three groups combined was 22.00. The separate medians for each group were: Group A, 32.00; Group B, 22.50;and Group C, 4.03.

Table xxxvi shows the number of students in each experimental condition who scored above and below the combined median on the Social Studies Scale.

TABLE xxxvi

Condition

	A	B	C
Above Median - - -	17	13	0
Below Median - - -	5	10	11

2 X 3 Contingency table showing the number of students, by condition, above and below the median in the Social Studies Scale of the STEP test.

The X^2 test of significance yields a value of 17.720, which is significant at well beyond the 0.01 level. What is immediately apparent upon examining Table xxxvi is the fact that none of the Control subjects obtained scores above the median on the Social Studies Scale. Equally apparent is the fact that close to 80% of the seminar group obtained scores above the combined median, with the non-seminar group occupying an intermediate position. The differences between Group C and both Groups A and B are significant at beyond the 0.01 level. The difference between Groups A and B is not significant statistically.

These results are in accord with the previous analysis involving the end-of-semester grades in Social Studies. In both comparisons, Group C control subjects performed significantly poorer than their counterparts in the seminar and non-seminar conditions.

Summary and Conclusions

Although relatively few measures employed in the final year of the Enriched Track 3 Program significantly differentiated among the experimental conditions, it is interesting to note that the seminar group obtained better median scores on all seven of the criterion measures employed in the final evaluation of performance. Table xxxvii shows the rank order of the medians on each measure in relation to each experimental condition. In interpreting this table, it is necessary to remember that a low median score in Absences and Latenesses represents "better" performance on this variable than a high median. Accordingly, the lowest median on each of the attendance measures is assigned a rank of one, and the highest a rank of three.

TABLE xxxvii

Rank of Medians

Group	End-of-Semester Grades Eng.	Soc. Stud.	Attendance Abs.	Late	STEP Scales Read.	Writ.	Soc.St.
A	1	1	1	1	1	1	1
B	3	2	3	3	3	2	2
C	2	3	2	2	2	3	3

Rank of the median scores achieved by each experimental group on the seven criterion measures employed in the final year of the study.

Since these measures cannot be considered independent, it is not possible to evaluate the statistical significance of these rankings. Nevertheless, considered as a whole, the data show that the students in the seminar group were certainly not performing poorer than their peers in the non-seminar and control groups. Indeed, the data suggest that the seminar group may have benefited from their experiences

Relation of fourth to sixth grade academic achievement to eleventh grade academic performance

In order to determine if the performance of the experimental subjects could be related in any way to earlier indices of achievement, the fourth, fifth, and sixth year end-of-semester grades were obtained on all subjects for whom they were available. By assigning a numerical score to each grade obtained by each individual over the three year period and summing, one obtains an overall indices of achievement, the fourth, fifth, and sixth year end-of-semester grades were obtained on all subjects for whom they were available. By assigning a numerical score to each grade obtained by each individual over the three year period and summing, one obtains an overall index of performance during the entire period. The numerical values assigned to each letter grade was as follows: A = 4; B = 3; C = 2; D = 1; F = 0. An individual obtaining straight A's in all five courses for each year obtained a cumulative score of sixty, whereas a person obtaining a mean of "C" throughout the period received a cumulative score of thirty.

The most relevant question raised was: Is there a relationship between the cumulative score in the fourth to sixth grades and performance at the high school level? To answer the question, the eleventh grade mean z-scores for each subject were converted to ranks as were the cumulative scores over the fourth to sixth grades. The rank order correlation between the two sets of scores was obtained for each experimental condition. The results of this analysis are shown in Table xxxviii.

TABLE xxxviii

Condition		
A	B	C
0.55*	-0.14	0.28

*significant at 0.01 level.

Rank order coefficients, by experimental condition, between fourth to sixth grade cumulative scores and eleventh grade z-scores.

Table xxxviii shows that only the rank correlation coefficient for Group A, the seminar condition, differed significantly from zero. This result may be taken as supporting the view that the seminar condition was producing effects which were not discernible in the non-seminar and control conditions. The very low, slightly negative correlation in the non-seminar group is surprising since, basically, it indicates that the fourth to sixth grade accumulative record of these students could not be used to predict academic performance. It is rare in psychological and educational research to find a behavioral index at one age essentially uncorrelated with a comparable index at a later age. When it occurs, it is suggestive of abnormal conditions. Perhaps it is this very condition which the present study was intended to correct. Be that as it may, one thing is clear, viz., the students in the seminar condition were performing in a "normal" fashion (i.e., high performers in fourth through sixth grades were generally performing high, relative to their group, in the eleventh grade and low performers in the fourth through sixth grades performed poorly in the eleventh grade). Perhaps the effect of the seminar condition was to permit students to perform in a way which was consonant with earlier indicators of achievement whereas, in the groups not benefitting from the seminar, performance during any given year is a random variable only marginally, if at all, related to prior indices of achievement.

A second question that was raised in connection with the fourth through sixth grade cumulative record was: Is it possible to identify, at an early age, those individuals who are likely to benefit from the seminar conditions? Because of the small numbers of subjects involved, it is impossible to make any definitive statements relating to this question. Nevertheless, the results are consonant with the correlational data presented above. Of the four students in the seminar condition who were identified as "overachievers" based upon their eleventh grade records, three were above the median in the fourth through sixth grade cumulative records. In the non-seminar group, on the other hand, four of the five individuals identified as "underachievers" based upon their eleventh grade records were above the median in the fourth through sixth years. Indeed, the cumulative record of this latter group during grades four through six was a respectable "B" average. One is tempted to speculate about the progress these students would have made had they been in the seminar condition.

VIII. Results Continued - Summary:

1. Although all the students in the program were underachievers, the correlation of IQ with STEP scores at the beginning of the study indicated that Group B was even more clearly an underachieving group.

2. Analysis of the N-Ach Test results revealed no significant differences between groups at the beginning or end of the first year.

3. There was no statistically significant difference between groups when IQ scores were compared.

STEP Results (1965-66):

1. Group B was significantly poorer than the other groups in Mathematics at the beginning of the study; no significant differences on other subject scales.

2. Group A was significantly better than Group C (Control) on the Social Studies Scale at the end of the first year.

3. All groups showed losses on all three scales when retested at the end of the year.

Group B showed statistically significant losses on all three scales of the STEP; Group C showed significant losses on two of the scales; and Group A showed a significant loss on only one of the scales.

Group A showed significantly less loss on the Reading Scale than Group B and Group C.

Grades (1965-66):

1. Group A achieved significantly higher grades in Speech compared with Group C at the end of the first year.

2. Group A achieved significantly higher grades in English compared with Group C at the end of the first year.

3. The low correlations between IQ scores and end-of-year grades (1965-66) strongly indicated the subjects of the study were drawn from a population of underachievers.

4. When group means of Speech grades were compared, Group A and B did not differ significantly from one another. However, the use of regression equations to assess individual performance identified ten students as "good", and ten students as "poor". None of the "poor" performers occurred in Group A while none of the "good" performers occurred in Group C. Application of the Fisher exact probability test to evaluate these differences revealed Group A differed significantly from Groups B and C.

A significantly greater number of Group A students were judged "good" performers in English compared with Groups B and C.

A significantly greater number of Group B students did better on Social Studies compared with Group C.

Grades (1966-67):

1. No significant differences between groups were found.

STEP (1967-68):

1. Groups A and B scored significantly higher than Group C on the Social Studies Scale of the STEP. While 80% of Group A scored above the combined median, none of Group C scored above the median, while Group B occupied an intermediate position.

Grades (1967-68):

1. Groups A and B were significantly higher than Group C when final Social Studies grades were compared.

N-Ach Test (1967-68):

1. No significant differences between groups were found.

Attendance:

1. Group A had significantly less absences than Group B.

Combined Results (1967-68):

When median scores of all criterion measures employed in the final evaluation were rank ordered, it was found that

Group A ranked first on every variable. While this result cannot be considered statistically significant, it is suggestive of a differential response to the program.

Comparison of Performance - Grades Four through Six vs. Grade Eleven

1. Only Group A showed a significant (positive) correlation between performance in Grades Four through Six compared with performance in Grade Eleven.

IX. Discussion

a. Interpretation of findings

The Enriched Track Three Program yielded varied results, some statistically significant, some statistically suggestive and some empirically meaningful.

We began with two hypotheses (stated in null form):

1) A guidance program will not significantly increase the achievement motivation of a group of high school low achievers.

2) A guidance program will have no significant effect upon the achievement level of a group of high school low achievers.

The use of the McClelland Need Achievement Test as a measure of motivation to achieve, was a complete disaster. The definition of achievement motivation as "competition with a standard of excellence" proved to be quite unrealistic as a measure for our students. We found that we could measure our track one students on this scale, but it was too high a standard for our group. We realized that we should have used a standard of mediocrity, since our students seemed concerned with the avoidance of failure and motivation for low achievement would have demonstrated progress. Instead of the pursuit of excellence, the desire to pass would have been a more realistic gauge of motivation. If attendance data can be considered an indirect reflection of motivation related to school, then the seminar condition made a difference. However, it cannot be assumed that the motivation to achieve was necessarily the variable measured since school attendance is often predicated upon social rather than academic achievement needs, especially with our student group.

Motivation to achieve was evident to our staff in several non-quantitative ways. A demand to be quizzed and concern over grades was a constant reminder that although our students disclaimed concern about academic performance, they protested too much. As they moved through the program, they became more open about their concern for good performance. The desire to continue with education past high school which was expressed and pursued by many of our students is a valid index of achievement motivation. From the original experimental group of students (Groups A and B) who graduated (forty-seven students):

seven were admitted to four year colleges; nineteen matriculated at two year colleges; five were admitted to two year colleges, but deferred their attendance for personal reasons; three other applications to two year colleges are currently pending; one girl is attending a two year professional drama school; and another is attending a secretarial school. No student who applied for further education has been denied it; even though these students have been track three throughout high school.

During the three years of the program, results shifted from year to year. Although Group A surpassed Group C at the beginning of the program on the STEP Social Studies Scale, by the end of the first year, all three groups had declined and showed losses on their scores. We attributed the decline to the simplest and most obvious explanation - our students had a marked aversion to taking standardized group tests which they felt "put them down" and exposed their inadequacies. They were quite vocal about their objections to taking such tests which they believed were intended to show how dumb they were and which made them different from the "normal" kids. It was in this area of test-taking that the need to avoid failure was most pronounced. The losses shown at the end of the first year retesting were most likely the results of this aversion to the tests. What is significant was that the losses were differential, i.e., Group A showed significantly less loss than either Group B or C. One assumption drawn is that the seminar condition led to a feeling of being more adequate, less threatened and less avoidant of failure.

The results suggested that while individual students might benefit from the enriched program, this benefit might not be apparent for the whole group; we found that some students' personal problems went far beyond the scope of assistance provided by our program.

Both experimental groups showed significantly better performance than Group C in the area of Social Studies as measured by both test scores and grades. Group A was originally superior to Group C on the STEP scores, but this difference disappeared when second year testing was done. There is a consideration relevant to the Social Studies results: Social Studies and English are dependent variables particularly within our program and the effects of English might very well be reflected in the Social Studies results. The better a student can organize and express ideas, read and write, the better he can answer questions.

An overview of the statistical results, both those significant and only suggestive, indicate a preponderance of conditions where Group A surpassed Group B and/or C. While unequivocal conclusions can not be drawn from the results, the suggested direction should not be ignored. The beneficial effects of the enriched program, particularly with the seminar condition, is supported by the reactions of faculty and students. Both of these participating groups cited the changes in teacher-student relationships. The students changed from a hostile-defensive posture, the teachers from a critical-derogatory posture, to a positive perception of each other based on mutual respect, intellectual and personal. This alteration was based on three years of experiences in class, on trips, discussion groups and seminars.

Perhaps, the students' own evaluations of the program can best express their attitudes.

Student Evaluations:

1. Seminar must be included - talk freely - none of my friends outside of this program are nearly as close to any of their teachers as I am with mine.

2. Track three was good - movies were excellent - especially those that pertained to books I read - more trips - don't be scared to make kids work.

3. Movies were good - teachers showed real interest and concern for the students - free atmosphere.

4. Heard seminar was pretty good - teachers were good but treated us younger.

5. Knew each other well (teachers and students) - trips were excellent.

6. Knew your teacher better - people knew too much about your business.

7. Knew each other - knew too well.

8. Loved the trips - dedicated and great teachers - could speak out about everything.

9. Can discuss what we want and not be afraid of what we say - movies one of best ways of learning - if I could do it all over again I would want the same program.

10. Seminar should be voluntary - should continue program.

11. Everyone was too close to everyone else and knew their business.

12. I hope next people in this three year program are helped as much as it helped me.

13. Attitude of students toward teachers rewarding - teachers very understanding and helpful.

14. Disliked seminar - discontinue program.

15. Trips to know each other better - all teachers seemed open-minded - I think program is a pioneer of how the whole school and all schools will have to be conducted some day. Best experiences I've had (in classes) in school.

16. Program was very good - movies, special events and trips especially good. Best wishes to future students and teachers in program.

17. Seminar could be boring - movies good - trips good - teachers good - could always talk to teacher about a problem - were close to them and they knew all of us - good student-teacher relationship.

18. Seminar didn't help much - movies were great - (together with book read) - teachers were close and knew students well.

19. Seminar a waste - movie along with book being read helped learning - trips interesting - teachers helpful.

20. Movies, trips, content good.

21. I'd love to stay in school just for the movies - loved trips - teachers were wonderful - the classes I think were really great.

22. Teachers got to know you but too much - didn't like trips or seminar - worthwhile program - I liked it.

23. Seminar and movies good - trips no good - more teachers in program.

24. At first I thought program was going to be a flop but I was wrong - teachers understanding - trips were the best, movies were great - disliked seminar.

25. Didn't care for any part of program.

26. Negative - but vague.

27. Seminar for opportunity to speak and get to know people - movies and special events important - trips are just in - teachers don't or couldn't come any better than ones we had. You all had such patience and strive to stick with it; that takes guts.

28. Classes were too easy - movies and trips were good - too easy.

29. Thank all teachers for great job they did in teaching me past three years. Like to see program throughout school - makes you want to come - student-teacher relationship - took fear of making mistakes away - teachers are human beings.

30. Films and trips were good.

31. Liked movies and trips - teachers were like friends - could talk to them about problems - disliked tests.

32. Felt were treated like babies but liked movies and trips - too easy - all in all not that bad.

33. Trips were great, too much movies - teachers treated us like little kids - discontinue program.

34. Liked conversing with teachers - movies were great - trips were good - don't think (program) could have improved.

35. Get rid of seminar - movies good, trips best part of program-Teachers-I shouldn't call teachers; I'll call them my friends - school would be better off if all the teachers were like them.

36. Liked teachers - got sick of same kids - liked movies.

In a program where so many changes were made, tangible and intangible, it would be gratuitous to claim any one factor as being primary or to disregard the effects of three additional years of development and maturation. Such results as were obtained must be attributed to the impact of the total program upon teachers and students alike and the effect upon the curriculum and classroom.

A significant and positive correlation between marks in grades four through six and eleventh grade was found for Group A. This indicates that only this group performed in accord with their elementary school performance. Those Group A students who had "good" performance in grades four through six were able to be "good" performers in grade eleven. "Good" performer in the other two groups did not perform consistently. This suggested that the seminar condition actualized the potential of these students. (The use of eleventh grade marks was necessitated by practical considerations).

IX. b. Implications and recommendations:

These students came to see us with varying degrees of distaste for reading, writing and studying. In most cases their "allergies" could be inferred and traced through comments of elementary school teachers. Robert Heineman and Marilyn Berstein in "The Fourth R" wrote, "Everyone knows that children have to "adjust" to school discipline, but it is seldom understood until too late how devastating is the power of that discipline. The impact of the teacher's power on a self that knows nothing of its own sovereignty has a profound and sometimes shattering effect on learning. If this blow is not entirely responsible for learning disabilities, it is certainly the source of that intractability which nullifies the curative force of remedial techniques and baffles good intention. Bad experiences, real or imaginary, bring these students to believe that genuine self-expression inspires punishment and honest communication leaves them open to manipulative controls." [6] They learned to hide, to tune out, and to cover with complicated defenses. Underneath the facades were self-blame, self-doubt, and sometimes self-pity; they expected to be low on the totem pole. Our basic premise was one of attempting to change achievement patterns through change in motivation, and the areas focused upon were curriculum, instruction, and student attitude. We began to understand, however, that these students courted failure and in the light of our national preoccupation with academic success, failure was an escape hatch. Accordingly we changed our focus from that of increasing motivation-to-achieve, to an attempt to first decrease their avoidance-of-failure syndrome. Failure threatened individuals are those "in whom the motive to avoid failure greatly exceeds the motive to achieve. He is dominated by the threat of failure, and so resists activities in which his competence might be evaluated against a standard, or the competence of others. Were he not surrounded by social constraints (social pressure by teachers and/or peers) he would never voluntarily undertake an activity requiring skill when there is any uncertainty about the outcome." [1]

Curriculum

As each year went by we learned to discard what was least effective, to modify and implement. New techniques suggested themselves and were tried. The rethinking of how and why these students learn impelled the team to reevaluate the kind of curriculum which has been traditionally used. The conclusion reached was that the tight subject area, time-sequence approach, prevents these students from learning, and the teacher from teaching. Curriculum should be an ongoing process, vital and related to every day life, involving all areas of instruction. Not that this approach isn't valid for all students; but our underachieving students lack other motivations and supports to sustain them. Teaching materials must look new and exciting, and should be culled from movies, television, newspapers, magazines, records, etc. Methodology should not be bound by static approaches. Therefore, the twelfth grade curriculum had a "humanities" approach which included art, music and science as well as English and Social Studies. This approach should be extended to include tenth and eleventh grades so that school becomes "education for what is real."

We found that "back-to-back" scheduling of Social Studies and English worked well. The joint curriculum afforded constant communication among teachers plus flexibility of a time block.

Curriculum writing, and revising was and should be an ongoing operation. It is possible for more than one teacher to write, especially in English, a team approach is preferable. A good teacher's teaching is inevitably identified with personality. Material which works for one, may not be as suitable for another. Summer is a good time to mimeograph course materials, reading lists, tests and evaluation sheets. General agreement on conceptual organization is necessary for articulation teacher to teacher and between subjects. We found ourselves continually evaluating, and on that basis discarding what was least effective, and adding or substituting where necessary. As we gained experience with track three'rs, the curriculum written became more effective.

We involved the students where possible, and as an outgrowth of one discussion, our students elected a committee to present their ideas to the principal. These ideas involved a new time schedule and different guidelines for study halls. Incidentally, two years later these ideas were implemented.

In retrospect our Social Studies teachers were pleased with the eleventh grade curriculum, but would have liked to expand and finalize "protest and change" units.

In twelfth grade curriculum we effected the best mesh between English and Social Studies. It came closer to our ideal of meaningful integration with a wealth of rich background materials. It also represented the most successful coordination of literature, trips, films, and special programs with ongoing curriculum.

Through literature, students can pass into a new world where thinking, feeling and learning are one. Books were chosen with an eye to the realities of human experience, its weakness, suffering and disappointments. Some books were read in part in school, and students learned that their innermost feelings and private fantasies were part of the common fabric of human experiences. Reading was thinking and feeling, and books were chosen with this in mind.

Some of the most successful books studied were:

Anthem
Catcher in the Rye
Separate Peace
The Stranger
Lord of the Flies
Company "K"
Sands of Kalahari
Nothing But a Man
Raisin in the Sun
The Last Hurrah
Caine Mutiny
Animal Farm
The Ugly American
Hunters
Of Mice and Men
Billy Budd (play)
Ox Bow Incident - (reading level too difficult)
Orwell's 1984 - Bombed - beyond their skill and interest

Our Town - Proved to be too philosophical and too abstract - Universalities did not motivate
Discovering Your Language - stiffly resisted
Hidden Persuaders - beyond the ability of most

Most successful films were:

Nobody Waved Goodbye
Math and Art
When I Grow Up
Nothing But a Man
Very Nice, Very Nice
Roots of Happiness
The Eye of the Perceiver
Lord of the Flies
On the Waterfront
High Noon - a fooler, students missed all subtleties

Most successful units were:

Mass Media; Protest and Change; The Family; Prejudice

Most successful special programs:

Mr. T. with his horn - Music and Math (Math teacher)
Musical Group - Track three'rs
Japan - Mr. D. (Social Studies teacher)
"What are your rights?" - Mrs. P. (local attorney)

It's no accident that of the many and varied special programs we presented, home talent rated highest.

Setting, Methods, Techniques

Back-to-back English and Social Studies, and team teaching allow flexibility in time, space, and methodology.

Varied and pertinent audio-visual instructional aides and trips are important tools. These students learn more easily through ears, eyes and touch, than by reading and studying. Films, trips, etc. should be related to curriculum, cooperatively planned, and detailed as to specifics to be observed and discussed. Each event should be followed by feedback and evaluation.

We allowed time for small groups oriented or solo activities. In this way the teachers could spend some time with individuals.

Structure and aims needed to be definitive, and shared goals were important. - Repeat and review, but cloak in new clothes. - Use student help wherever possible. - Start from structure and move to less, as they become more confident. - Vary the rhythm of space and time. - Depth and flexibility of material are important to help teacher in appealing to different levels of experience and basic skills. Move from visual and auditory to reading, writing and speaking. - Use imaginative approaches to develop reading, listening, writing, speaking, associative and inferential skills. - Uncover varied talents and interests of the group such as music, dramatics, stamp collecting; utilize to motivate, to elevate the "talented" one. - Avoid too concentrated work involving reading; space it. - Introduce techniques of interviewing and move from simple to more complex. - Try to build intellectual curiosity, if only in a limited way.

Knowledge of group dynamics would be an asset. As soon as a disturbance or disquieting event happens, stop the planned lesson and group discuss. It improves the level of interaction between and among students, and it's surprising the amount of insight they have into the problems of others.

Much thought given to extend their ability to concentrate, tackle and complete a given task. Start in a small way and expand.

Homework was a problem. We found it unrealistic to expect some of these students to do homework on any regular basis. A great many had jobs with long hours, some were socially oriented, others were out for athletic teams. They lacked the drive, time and discipline to do school work out of school.- "Enough already", to attend fairly regularly. If we were rigid about homework, the pluggers and conformers did it, and the other half resisted.

Listening: These students were especially grateful when we really listened to them. This had possibilities for teaching them to really listen to us.

While some resisted reading and speaking, almost all resisted writing. It was possibly the most demanding and least rewarding task for teachers. We tried to raise their level of organization, logical thinking and recording of ideas.

After much struggle, the track three'rs put out a paper that they and we were proud of. They also wrote, directed and acted scenes involving Social Study units. We attempted a television project, but this bogged down in argument such as where the action would take place. Their script tended to call for locales such as Montauk Point and Jones Beach!

Success breeds success, so plan for successes, no matter how small. Attitudes have a profound effect on motivation, and success invariably improves attitude.

Use models where possible, both peer and adult.

Never take anything for granted in teaching track three students; always define terms, boundaries.

Directed study in part of a class period, allowed for some individual and/or remedial work.

There was a need for these students to achieve immediate results, therefore short term goals were necessary.

Capitalize and utilize their desire for social recognition and group approval. Track three'rs, more than others, need to feel individual worth and confidence.

In working with study habits, make sure they understand operational difference between learning and overlearning.

Since they watch television anyway, avoid guilt feelings on their part, and assign television homework where practical and relevant.

Foster self-evaluative habits. Too often they do not profit from their experiences.

"Thought" cards are a good technique, especially at the start of the year. It helps the teacher to know more about the student in a relatively short time, and it fosters some looking inward. There is a tendency for some track three students to be somewhat overproductive in thought and action, in a haphazard way.

Seminar:

By design, our twice weekly seminars were planned to be an extension and enrichment of classroom experiences. We also tried to allow and encourage expressions of their anger and fear, to help them through group process to disentangle their emotional problems from the academic. The overall group exposure was threatening especially for students who made an art out of hiding, of evasiveness. Some felt it an imposition; time spent without a mark or unit of credit. We learned during the tenth year, that it was more important to discuss adolescent concerns such as dating and family problems. Occasionally, there were topics pursued that were an outgrowth of class work. Solving family and social problems was high on the student's need list; enriched classroom work low!

Our seminar students expressed ambivalent feelings towards teachers. They liked teachers as individuals and appreciated us as friends outside the classroom. However, the moment we began to teach our individuality seemed to disintegrate for them. They identified formal school learning, with a means of getting somewhere, or toward materialistic gain.

The restorative value of the straightforward and sympathetic relationships developed in seminar, was not realized with some students. Friendship and interest on the part of a teacher, in several cases was too threatening, students couldn't allow the closeness. One boy needed the teacher's support, asked for it, and then recoiled, presumably remembering old fears of domination and manipulation.

On the whole, though, we found seminar an effective technique for humanizing staff, for paying attention to what was really current and important to our students. It allowed, and encouraged an expression of anger, and helped to identify some of their problems. Frustrations and hostility couldn't be throttled or sweet talked away. Before any learning took place, attention had to be paid to releasing negative blocks, and seminar served this purpose. Seminar also humanized teachers for the students.

Students also learned that disagreement and divergence does not always lead to rejection. As communication and empathy increased between student and teacher, between student and student, some of the more inhibited found it easier to express themselves. Conversely, the impulsive, undisciplined extroverts, learned to be more thoughtful, to listen. Although none of the staff had formal training in group dynamics, everyone learned more of the dynamics and the process.

While seminar as a technique was successful, our project design locked a small group of students and teachers into three years of meeting twice weekly. For optimum growth, groups should be shuffled more frequently.

Teacher-Student Relationship:

One of the most important aspects of working with non-academically oriented students is to maintain flexibility. Any valid, intellectual or emotional question should be attended to. Flexible in this context should not be construed to mean lack of teacher preparation, but rather to mean teacher readiness for any divergent topics of importance. Sometimes the surest way to reach goals, was to go toward it in a circular way, rather than a straight line.

Put aside lesson plans if necessary and seize every opportunity in the classroom to get them to express freely the feelings which interfere with learning. Beware of misunderstanding the meaning of stubborn learning blocks. Teachers should not take it personally, should not regard students' achievement as a measure of ability to teach or their ability to learn. We become especially vulnerable when we try to rescue students from chronic failure. We feel too responsible, inadvertently sharing their illusions about our power. Experiences showed us, when a student makes up his mind not to learn, no one can teach him.

Teachers must maintain a positive attitude even if it hurts, and it does. These students question school and their commitment is often equivocal. For some, special help classes, tutoring, and clinics seem to make them feel more trapped.

It's important for teachers to set a minimum of rules but to be consistent. Keep teacher talk to a minimum and guard against passivity; build an involvement.

Evaluations:

The problem of evaluation was a critical and puzzling one. Marking systems in general use today, brand these youngsters as failures. In our society, we sniff at the gentleman "C" and only "B"s and "A"s are regarded as acceptable. This fosters avoidance of failure behavior with low-on-totem set.

When standardized tests were given, resistance was staunch. As one boy said, "Here goes another put-down and we won't even learn to correct our mistakes, we just learn that our percentile is low." For purposes of our study, standardized tests were required. After watching the test taking behavior, however, it appeared that what was being measured was frustration, anger, and anxiety levels.

In the classroom they preferred short quizzes once a week; tests geared to cover a limited area, and with feedback immediately after the quizz.

For some subjects, for all pupils, a "pass" or "fail" option seems desirable. For students lacking in confidence and some basic skills, it is especially desirable. It should encourage them to broaden horizons without the nagging fear of a low evaluation.

As experimentation evolved with various forms of evaluation, grades, no-grades, etc., it soon became evident that even more than an acceptable marking system was the track three'rs need to be like everyone else.

We think there is merit in a no-failure system. Individuals would have contracts to be worked through at their own speed. Accomplishments are recorded, but no one fails, although it might take him longer to move on to the next task. In other words, lack of a grade signifies that the set standards have not yet been met.

Organization:

The track three as identified at Syosset High School includes a variety of pupils: the slow learner, the lazy and unmotivated, pupils lacking in basic skills, and emotional problems. We question the validity of designating these low achieving students as a category different from the standard, with all the implications that everybody reads into this. The tracking system and the purposes underlying its original organizations leave little doubt that track three occupies the bottom of a hierachy. The implication is that for track three students to be successful, they must remediate and move up from their lowly position. We submit that most track three students are not less than the standard students, but perhaps different in attitudes, values, intellectual skills and certainly, experiences. We feel it highly unrealistic to expect they will become just like their track two peers. Further, we feel very strongly that something must be done to foster their achieving and peer status with the track two students. Therefore, we recommend that the track three designation be eliminated and that we have more than one standard track with curricula that are different, but equal.

The ungraded plan, and humanities approach, modular scheduling of non-tracked students seems to offer much. The large group arrangement lends itself to stretching their horizons and self-respect; the small groups to remediation and group process benefits.

Experience has strengthened our opinion that these students are deficient in basic skills such as reading, mathematics, written and oral communication. Part of our recommendation for the track three program is an effort to provide remedial work within the framework of a regular class.

We are also responding to the relative lack of intragroup stimulation, the absence of other kinds of reactions to learning and the sometimes devastating effects of feeling "so different from everybody else" that we have observed in our students. With track three'rs there is continuous reflection and reinforcement of negative attitudes toward self, scholastic achievement and aspirations which result from their self-containment and insularity.

Until such time as heterogenous grouping, and the Nova type plan can be initiated, we recommend Enriched Track 3 be continued to take care of these students. We further recommended that Enriched Track 3 experiment be tried at the seventh grade level. The results should be more valid for several reasons. Seventh grade pupils would not be as deeply involved in adolescent changes, and they would not have experienced a previous track three "put-down", and their defenses not so deeply entrenched.

While we are aware that the elementary schools have given much time and thought to the underachiever and learning blocks, we urge further study and experiment. The start of most of these problems is in the early years of life.

High school is rather late to start with these youngsters. Better to try new techniques in elementary school before the student internalizes a low self-image and an overpowering need to avoid learning situations. The social-sexual demands of adolescence complicates attempts to remediate and motivate in high school.

Therefore, we strongly urge that a district committee be formed for the purpose of determining what is the earliest school level where "avoidance of failure" pattern can be identified, and what are its main characteristics. If it is feasible, then a pilot or experimental program should be instituted for the purpose of modifying this problem, at the earliest possible grade level.

X. Summary:

Syosset High School had a group of students who were considered to be low achievers. These students occupied classroom space, but did not learn, and may be thought of as mental drop-outs. A review of the related literature indicates no single cause and no simple cure. Among the most frequently mentioned causes of low achievers was: dissatisfactions of both teachers and students themselves, the low achievers' poor self-image, the importance of the teachers' role and attitudes, and the necessity for curriculum modification. Although Syosset had a remedial track, review of records indicated that few students ever leave this track and return to the standard track.

In the related literature, failure to learn was frequently described as a resistance to authority (Holt, Kelly) where there exists disparate perceptions of the educational scene on the part of teachers and students. The social needs of the adolescent are often at variance with the demands of learning and learning becomes a source of frustration to be avoided (Lorand). The underachiever is often a failure-threatened person whose main motivation becomes the avoidance of failure rather than the achievement of success. School programs usually intensify the threat of failure and the student continues to sit in class only because social constraints keep him there (Atkinson and Feather).[1]

Hypotheses (stated in null form)

A guidance program will not significantly increase the achievement motivation of a group of high school low achievers.

A guidance program will have no significant effect upon the achievement level of a group of high school low achievers.

Objectives

1. Increase students' motivation to achieve by:
   a) Creating more positive teacher attitudes.
   b) Creating a more meaningful curriculum.

c) Increasing the standards of performance in English and Social Studies.
d) Relating their personal interests to the curriculum.
e) Creating an in-group with which they can identify and which reflects a desire for achievement and academic success.

2. Increase students' actual achievement in all subjects by raising their achievement motivation and increasing academic skills.

3. Development of a new approach to low achieving high school drop-outs by a guidance and curriculum approach.

4. Demonstration of techniques and approach to teachers other than those directly participating in the project (high school level), and to teachers on lower grade levels.

5. Development of new curriculum materials based on actual use and experience with these materials in the classroom.

Procedures - Subjects Involved

All pupils recommended for track three in English and Social Studies in tenth grade for the school year beginning September, 1965 were included in the study with the exception of those students assigned to a part-time vocational program out of the district. On this basis a total of seventy-three students was included in the study out of a total available population of ninety-one. (The remaining eighteen were students in the vocational program). In accord with the recommendation of the State Education Department, the size of the Control Group was increased by fifty subjects for statistical analysis of the final results. These students met the same criteria for being low achievers as the original group and were selected from the grade which was a year behind our original group. The assignment to track three was made in ninth grade on the basis of teacher and guidance counselor recommendations, actual class performance and grades and test scores. Originally it was intended to also statistically identify and confirm the low achieving students, but several operational difficulties prevented the use of this method to select subjects for the study although the use of regression equations was used subsequently to describe performance. It was intended originally to use the sequential tests of education progress, part of the guidance program for tenth grade, as the criterion of achievement. The scores of the Otis Intelligence Test, also part of the regular guidance program administered in ninth grade were to be used as the predictor score. However, there was an unavoidable delay in having the test scores returned from the Test Scoring Service and a further delay in obtaining the results of the statistical analysis of the scores so that this data was not available until the end of the first year of the program after the groups had already been organized. Further, the State Education Department recommended at the end of the year that a second IQ score be obtained to make this measure more reliable. Results of this testing were not available until the middle of the second year of the program.

The students selected were randomly assigned to a control group and two experimental groups. Distribution of boys and girls in each group was equalized. Mean IQ's were calculated for the various groups to ascertain if the groups were equivalent.

The tenth grade low achievement students were divided into three groups:

1) Experimental Group A - Seminar
2) Experimental Group B - Non-Seminar
3) Control - Regular Track Three

Educational Activities

Experimental Group A

The students who comprised Experimental Group A were divided into two smaller class groups for classes in English and Social Studies. These classes were held periods one and two in the day and formed a block of time that was utilized for team teaching, small discussion groups, and other procedures which required flexible programming.

The third period of the day was used for student seminar meetings (two periods per week), individual counseling, supervised study, library work, and teacher-student conferences. The seminar groups consisted of seven to eight students.

After screening by the reading teacher, the group was divided into three smaller groups based on their reading level and reading disabilities for the purpose of receiving remedial instruction one period per week.

The group attended group guidance classes, guidance topics were explored, e.g., vocational interests, career areas, recreational interests, hobbies, clubs, et cetera.

Weekly cultural programs were scheduled to involve the students in activities in which they ordinarily would not participate. These activities included films, folk music, science lectures, and field trips.

The field trips were to historical museums, art exhibits, theatres and subjects of general interest- (communications, transportation, etc.). In all instances field trips were related to current topics in the curriculum.

Experimental Group B

This group followed the same program as Experimental Group A except they did not participate in the student seminars. They were divided into two smaller groups for classes in English and Social Studies, et cetera.

Control Group

These students followed a regular program of study selected according to the usual high school procedure. No special provisions were made for them, and they served as a comparison group for the two experimental groups by providing a standard of reference for statistical purposes.

Educational Activities:

The program activities fell into three categories, separate but related: curriculum, student seminars and faculty seminars.

Curriculum guides in English and Social Studies were prepared prior to each school year to provide a frame of reference for curriculum development during the year. Materials and techniques were prepared, added, deleted and modified as an ongoing process during the term. Teacher preparation periods and the faculty seminars were used to evaluate curriculum materials and methods. Experiences with students in the classroom were reflected in revisions that were made. Core programming in English and Social Studies with back-to-back scheduling, followed by student seminar, permitted integration of both subjects. The student seminar fostered small group discussion of classroom topics and provided feedback to the teachers about the students' reactions to the previous classes.

In addition to the textbooks, supplementary readings, films, field trips, recordings and invited resource persons were used.

Instruments Used:

1. Intelligence - Otis Test of Mental Ability
   Form: Gamma EM, Gamma FM
2. Achievement - Sequential Tests of Educational Progress (STEP)
   Form: 2A, 2B
3. Motivation - N-Ach Test (Need Achievement Test, McClelland et al)
   Pictures: A, B, G, H (See Appendix A)

Procedures for Data Analyses:
Beginning of the Study

In order to obtain a more stable estimate of each subject's intelligence, the mean score of two testings was employed as the best estimate of the IQ of each subject. These scores were, in turn, converted into Z scores ($Z = \frac{X-X}{S}$).

STEP scores (English, Social Studies, Mathematics and Science) were converted to standard scores and correlated with IQ (Pearson r). Regression equations predicting achievement scores from IQ scores were developed making it possible to determine for each subject whether he performed better or poorer than expected based upon his combined IQ score and to describe how much each subject deviated from the "expected" score. A large deviation was defined as one equalling or exceeding ± 1 ^{s}Est.Y.

Final grades in English, Speech, Social Studies and Mathematics were converted into two scores and their correlations with IQ obtained. Regression equations predicting end-of-year grades from IQ scores were developed, making it possible to determine for each subject in the experiment whether he performed better or poorer than expected based upon his combined IQ score and to describe how much each subject deviated from the "expected" score. A large deviation was defined as one equalling or exceeding ± 1 ^{s}Est.Y.

The ratings of three judges of responses on the McClelland N-Ach. Test were correlated (Rho).

Measures were obtained at the beginning of the program, end of the first year, and end of program. t-ratios were used to evaluate differences between groups.

End-of-the-year grades in Speech*, English, Social Studies and Mathematics were converted to Z scores, t-ratios were used to compare differences between means and the significance of the differences.

*Tenth grade English consists of one semester Speech, one semester English.

End-of-year-grades (1965-66) were correlated with IQ score (Pearson r).

Regression equations calculated: end-of-year grades (1965-66) based on IQ scores. Fisher exact probability test used to evaluate differences between number of students with "good" and "poor" performances.

End of Study:

Final grades of all students for a given subject* were grouped together and the overall median grade was determined. The number of students in each condition scoring above and below the median was tabulated and the differences were evaluated statistically in terms of the Chi Square Test of Independence.

Scores from the twelfth grade STEP testing were treated as above.

Attendance (number of days absent) data were treated as above.

Final marks from grades four, five and six were obtained on all subjects for whom they were available. A numerical score was assigned to each grade obtained by each individual over the three year period. Each subject's scores were summed yielding an overall index of performance during the three year period. The numerical values assigned to each letter grade were as follows: A = 4; B= 3; C = 2; D = 1; F = 0. An individual obtaining straight A's in all five subjects for each year obtained a cumulative score of sixty, whereas a person obtaining a mean "C" throughout the period received a cumulative score of thirty.

Eleventh grade mean Z scores for each subject were converted to ranks as were cumulative scores over the fourth to sixth grades. The rank order correlation between the two sets of scores was obtained for each experimental condition.

*Mathematics excluded due to lack of sufficient number of students taking subject.

Results: (Summary)

Although all the students in the program were underachievers, the correlation of IQ with STEP scores at the beginning of the study indicated that Group B was even more clearly an underachieving group.

Analysis of the N-Ach Test results revealed no significant differences between groups at the beginning or end of the first year.

There was no statistically significant difference between groups when IQ scores were compared.

STEP Results (1965-66)

Group B was significantly poorer than the other groups in Mathematics at the beginning of the study; no significant differences on other subject scales.

Group A was significantly better than Group C- (Control) on the Social Studies Scale at the end of the first year.

All groups showed losses on all three scales when retested at the end of the year.

Group B showed statistically significant losses on all three scales of the STEP, Group C showed significant losses on two of the scales, and Group A showed a significant loss on only one of the scales.

Group A showed significantly less loss on the Reading Scale than Group B and Group C.

Grades (1965-66)

Group A achieved significantly higher grades in Speech compared with Group C at the end of the first year.

Group A achieved significantly higher grades in English compared with Group C at the end of the first year.

The low correlations between IQ scores and end-of-year grades (1965-66) strongly indicated the subjects of the study were drawn from a population of underachievers.

When group means of Speech grades were compared, Group A and B did not differ significantly from one another. However, the use of regression equations to assess individual performance identified ten students as "good" and ten students as "poor". None of the "poor" performers occurred in Group A while none of the "good" performers occurred in Group C. Application of the Fisher exact probability test to evaluate these differences revealed Group A differed significantly from Groups B and C.

A significantly greater number of Group A students were judged "good" performers in English compared with Groups B and C.

A significantly greater number of Group B students did better on Social Studies compared with Group C.

Grades: (1966-67)

No significant differences between groups were found.

STEP (1967-68)

Groups A and B scored significantly higher than Group C on the Social Studies Scale of the STEP. While 80% of Group A scored above the combined median, none of Group C scored above the median, while Group B occupied an intermediate position.

Grades: (1967-68)

Groups A and B were significantly higher than Group C when final Social Studies grades were compared.

N-Ach Test (1967-68)

No significant differences between groups were found.

Attendance

Group A had significantly less absences than Group B.

Combined Results: (1967-68)

When median scores of all criterion measures employed in the final evaluation were rank ordered, it was found that Group A ranked first on every variable. While this result cannot be considered statistically significant, it is suggestive of a differential response to the program.

Comparison of Performance - Grades Four through Six vs. Eleventh Grade

Only Group A showed a significant (positive) correlation between performance in Grades four through six compared with performance in grade eleven.

Discussion and Interpretation

The Enriched Track Three Program yielded varied results, some statistically significant, some statistically suggestive and some empirically meaningful.

We began with two hypotheses (stated in null form):

A guidance program will not significantly increase the achievement motivation of a group of high school low achievers.

A guidance program will have no significant effect upon the achievement level of a group of high school low achievers.

The use of the McClelland Need Achievement Test as a measure of motivation to achieve, was a complete disaster. The definition of achievement motivation as "competition with a standard of excellence" proved to be quite unrealistic as a measure for our students. We found that we could measure our track one students on this scale, but it was too high a standard for our group. We realized that we should have used a standard of mediocrity, since our students seemed concerned with the avoidance of failure and motivation for low achievement would have demonstrated progress. Instead of the pursuit of excellence, the desire to pass would have been a more realistic gauge of motivation. If attendance data can be considered an indirect reflection of motivation related to school, then the seminar condition made a difference. However, it cannot be assumed that the motivation to achieve was necessarily the variable measured since school attendance is often predicated upon social rather than academic achievement needs, especially with our student group.

Motivation to achieve was evident to our staff in several non-quantitative ways. A demand to be quizzed and concern over grades was a constant reminder that although our students disclaimed concern about academic performance, they protested too much. As they moved through the program, they became more open about their concern for good performance. The desire to continue with education past high school which was expressed and pursued by many of our students is a valid index of achievement motivation. From the original experimental group of students (Groups A and B) who graduated (forty-seven students): seven were admitted to four year colleges; nineteen matriculated at two year colleges; five were admitted to two year colleges, but deferred their attendance for personal reasons; three other applications to two year colleges are currently pending; one girl is attending a two year professional drama school; and another is attending a secretarial school. No student who applied for further education has been denied it; even though these students have been track three throughout high school.

During the three years of the program, results shifted from year to year. Although Group A surpassed Group C at the beginning of the program on the STEP Social Studies Scale, by the end of the first year, all three groups had declined and showed losses on their scores. We attributed the decline to the simplest and most obvious explanation - our students had a marked aversion to taking standardized group tests which they felt "put them down" and exposed their inadequacies. They were quite vocal about their objections to taking such tests which they believed were intended to show how dumb they were and which made them different from the "normal" kids. It was in this area of test-taking that the need to avoid failure was most pronounced. The losses shown at the end of the first year retesting were most likely the results of this aversion to the tests. What is significant was that the losses were differential, i.e., Group A showed significantly less loss than either Group B or C. One assumption drawn is that the seminar condition led to a feeling of being more adequate, less threatened and less avoidant of failure.

The results suggested that while individual students might benefit from the enriched program, this benefit might not be apparent for the whole group; we found that some students' personal problems went far beyond the scope of assistance provided by our program.

Both experimental groups showed significantly better performance than Group C in the area of Social Studies as measured by both test scores and grades. Group A was originally superior to Group C on the STEP scores but this difference disappeared when second year testing was done. There is a consideration relevant to the Social Studies results: Social Studies and English are dependent variables particularly within our program and the effects of English might very well be reflected in the Social Studies results. The better a student can organize and express ideas, read and write, the better he can answer questions.

An overview of the statistical results, both those significant and only suggestive, indicate a preponderance of conditions where Group A surpassed Group B and/or C. While unequivocal conclusions cannot be drawn from the results, the suggested direction should not be ignored. The beneficial effects of the enriched program, particularly with the seminar condition, is supported by the reactions of faculty and students. Both of these participating groups cited the changes in teacher-student relationships. The students changed from a hostile-defensive posture, the teachers from a critical-derogatory posture, to a positive perception of each other based on mutual respect, intellectual and personal. This alteration was based on three years of experiences in class, on trips, discussion groups and seminars.

In a program where so many changes were made, tangible and intangible, it would be gratuitous to claim any one factor as being primary or to disregard the effects of three additional years of development and maturation. Such results as were obtained must be attributed to the impact of the total program upon teachers and students alike and the effect upon the curriculum and classroom.

A significant and positive correlation between marks in grades four through six and eleventh grade was found for Group A. This indicates that only this group performed in accord with their elementary school performance. Those Group A students who had "good" performance in grades four through six were able to be "good" performers in grade eleven. "Good" performers in the other two groups did not perform consistently. This suggested that the seminar condition actualized the potential of these students. (The use of eleventh grade marks was necessitated by practical considerations).

Implications and Recommendations:

These students came to see us with varying degrees of distaste for reading, writing and studying. In most cases their "allergies" could be inferred and traced through comments of elementary school teachers. Robert Heineman and Marilyn Berstein in "The Fourth R" wrote, "Everyone knows that children have to "adjust" to school discipline, but it is seldom understood until too late how devastating is the power of that discipline. The impact of the teacher's power on a self that knows nothing of its own sovereignty has a profound and sometimes shattering effect on learning. If this blow is not entirely responsible for learning disabilities, it is certainly the source of that intractability which nullifies the curative force of remedial techniques and baffles good intention." "Bad experiences, real or imaginary, bring these students to believe that genuine self-expression inspires punishment and honest communication leaves them open to manipulative controls."1 They learned to hide, to tune out, and to cover with complicated defenses. Underneath the facades were self-blame, self-doubt, and sometimes self-pity; they expected to be low on the totem pole. Our basic premise was one of attempting to change achievement patterns through change in motivation, and the areas focused upon were curriculum, instruction, and student attitude. We began to understand, however, that these students courted failure and in the light of our national preoccupation with academic success, failure was an escape hatch. Accordingly, we changed our focus from that of increasing motivation-to-achieve, to an attempt to first decrease their avoidance-of-failure syndrome. Failure threatened individuals are those "in whom the motive to avoid failure greatly exceeds the motive to achieve. He is dominated by the threat of failure, and so resists activities in which his competence might be evaluated against a standard, or the competence of others. Were he not surrounded by social constraints (social pressure by teachers and/or peers) he would never voluntarily undertake an activity requiring skill when there is any uncertainty about the outcome." 2.

Curriculum:

As each year went by we learned to discard what was least effective, to modify and implement. New techniques suggested themselves and were tried. The rethinking of how and why these students learn impelled the team to re-evaluate the kind of curriculum which has been traditionally used. The conclusion reached was that the tight subject area, time sequence approach prevents these students from learning, and the teacher from teaching. Curriculum should be an ongoing process, vital and related to every day life, involving all areas of instruction. Not that this approach isn't valid for all students; but our underachieving students lack other motivations and supports to sustain them. Teaching materials must look new and exciting, and should be culled from movies, television, newspapers, magazines, records, etc. Methodology should not be bound by static approaches. Therefore, the twelfth grade curriculum had a "humanities" approach which included art, music and science as well as English and Social Studies. This approach should be extended to include tenth and eleventh grades so that school becomes "education for what is real."

We found that "back-to-back" scheduling of Social Studies and English worked well. The joint curriculum afforded constant communication among teachers plus the flexibility of a time block.

Curriculum writing, and revising was and should be an ongoing operation. It is possible for more than one teacher to write, especially in English, a team approach is preferable. A good teacher's teaching is inevitably identified with peraonality. Material which works for one, may not be as suitable for another. Summer is a good time to mimeograph course materials, reading lists, tests and evaluation sheets. General agreement on conceptual organization is necessary for articulation, teacher to teacher, and between subjects. We found ourselves continually evaluating, and on that basis discarding what was least effective, and adding or substituting where necessary. As we gained experience with track three'rs, the curriculum written became more effective.

We involved the students where possible, and as an outgrowth of one discussion our students elected a committee to present their ideas to the principal. These ideas involved a new time schedule and different guidelines for study halls. Incidentally, two years later these ideas were implemented.

In retrospect our Social Studies teachers were pleased with the eleventh grade curriculum, but wished to expand and finalize "protest and change" units.

In twelfth grade curriculum we effected the best mesh between English and Social Studies. It came closer to our ideal of meaningful integration with a wealth of rich background materials. It also represented the most successful coordination of literature, trips, films, and special programs with ongoing curriculum.

Through literature, students can pass into a new world where thinking, feeling and learning are one. Books were chosen with an eye to the realities of human experience, its weakness, suffering and disappointments. Some books were read in part in school, and students learned that their hoarded feelings and private fantasies were part of the common fabric of human experiences. Reading was thinking and feeling, and books were chosen with this in mind.

Some of the most successful books studied were:

Anthem
Catcher in he Rye
Separate Peace
The Stranger
Lord of the Flies
Company "K"
Sands of Kalahari
Nothing But a Man
Raisin in the Sun
The Last Hurrah
Caine Mutiny
Animal Farm
The Ugly American
Hunters
Of Mice and Men
Billy Budd (play)

Ox Bow Incident - reading level too difficult
Orwell's "1984" - Bombed - beyond their skill and interest
Our Town - Proved to be too philosophical and too abstract - Universalities did not motivate
Discovering Your Language - stiffly resisted
Hidden Persuaders - Beyond the ability of most

Most successful films were:

Nobody Waved Goodbye
Math and Art
When I Grow Up
Nothing But a Man
On the Waterfront
Roots of Happiness
The Eye of the Perceiver
Lord of the Flies
Very Nice, Very Nice
High Noon - a fooler, students missed all subtleties

Most successful units were:

Mass Media; Protest and Change; The Family; Prejudice

Most successful special programs:

Mr. T. with his horn - Music and Math (Math teacher)
Musical Group - Track three'rs
Japan - Mr. D. (Social Studies teacher)
What are your rights? - Mrs. P. (local attorney)

It's no accident that of the many and varied special programs we presented, home talent rated highest.

Setting, Methods, Techniques:

Back-to-back English and Social Studies, and team teaching allow flexibility in time, space, and methodology.

Varied and pertinent audio-visual instructional aides and trips are important tools. These students learn more easily through ears, eyes and touch, than by reading and studying. Films, trips, etc. should be related to curriculum, cooperatively planned, and detailed as to specifics to be observed and discussed. Each event should be followed by feedback and evaluation.

We allowed time for small group oriented or solo activities. In this way the teachers could spend some time with individuals.

Structure and aims needed to be definitive, and shared goals important.

Repeat and review, but cloak in new clothes.

Use student help wherever possible.

Start from structure and move to less as they become more confident.

Vary the rhythm of space and time.

Depth and flexibility of material important to help teacher in appealing to different levels of experience and basic skills.

Move from visual and auditory to reading, writing and speaking.

Use imaginative approaches to develop reading, listening, writing, speaking, associative and inferential skills.

Uncover varied talents and interest of the group such as music, dramatics, stamp collecting; utilize to motivate, to elevate the "talented" one.

Avoid too concentrated work involving reading; space it.

Introduce techniques of interviewing and move from simple to more complex. Try to build intellectual curiosity, if only in a limited way.

Knowledge of group dynamics would be an asset. As soon as a disturbance or disquieting event happens, stop the planned lesson and group discuss. It improves the level of interaction between and among students, and it's surprising the amount of insight they have into the problems of others.

Much thought given to extend their ability to concentrate, tackle and complete a given task. Start in a small way and expand.

Homework was a problem. We found it unrealistic to expect some of these students to do homework on any regular basis. A great many had jobs with long hours, some were socially oriented, others were out for athletic teams. They lacked the drive, time and discipline to do school work out of school. "Enough already", to attend fairly regularly. If we were "G.I." about homework, the pluggers and conformers did it, and the other half resisted.

Listening: These students were especially grateful when we really listened to them. This had possibilities for teaching them to really listen to us.

While some resisted reading and speaking, almost all resisted writing. It was possibly the most demanding and least rewarding task for teachers. We tried to raise their level of organization, logical thinking and recording of ideas.

After much struggle they put out a paper that they and we were proud of. They also wrote, directed and acted scenes involving Social Studies units. We also attempted a television project, but this bogged down in argument such as where the action would take place. The script tended to call for locales such as Montauk Point and Jones Beach.

Success breeds success, so plan for successes, no matter how small. Attitudes have a profound effect on motivation, and success invariably improves attitude.

Use models where possible, both peer and adult.

Never take anything for granted in teaching track three'rs; always define terms, boundaries.

Directed study in part of a class period, allowed for some individual and/or remedial work.

There was a need for these students to achieve immediate results, therefore short term goals were necessary.

Capitalize and utilize their desire for social recognition and group approval. Track three'rs, more than others, need to feel individual worth and confidence.

In working with study habits, make sure they understand operational difference between learning and over-learning.

Since they watch television anyway, avoid guilt feelings on their part, and assign television homework where practical and relevant.

Foster self-evaluative habits. Too often they do not profit from their experiences.

"Thought" cards are a good technique, especially at the start of the year. They help the teacher to know more about the student in a relatively short time, and they foster some looking inward. There is a tendency for some track three'rs to be somewhat overproductive in thought and action, in a haphazard way.

Seminar:

By design our twice weekly seminars were planned to be an extension and enrichment of classroom experiences. We also tried to allow and encourage expressions of their anger and fear, to help them through group process to disentangle their emotional problems from the academic. The overall group exposure was threatening especially for students who made an art out of hiding, of evasiveness. Also they felt it an imposition; time spent without a mark or unit of credit. We learned during the tenth year, that it was more important to discuss adolescent concerns such as dating and family problems. Occasionally, there were topics pursued that were an outgrowth of class work. Solving family and social problems was high on the student's need list; enriched classroom work low!

Our seminar students expressed ambivalent feelings towards teachers. They liked teachers as individuals and appreciated us as friends outside the classroom. However, the moment we began to teach our individuality seemed to disintegrate for them. They identified formal school learning, with a means of getting somewhere, or toward materialistic gain.

The restorative value of the straightforward and sympathetic relationships developed in seminar, was not realized with some students. Friendship and interest on the part of a teacher, in several cases was too threatening, students couldn't allow the closeness. One boy needed the teacher's support, asked for it, and then recoiled, presumably remembering old fears of domination and manipulation.

On the whole, though, we found seminar an effective technique for humanizing staff, for paying attention to what was really current and important to our students. It allowed and encouraged an expression of anger, and helped to identify some of their problems. Frustrations and hostility couldn't be throttled or sweet talked away. Before any learning took place, attention had to be paid to releasing negative blocks, and seminar served this purpose.

Students also learned that disagreement and divergence do not always lead to rejection. As communication and empathy increased between student and teacher, between student and student, some of the more inhibited found it easier to express themselves. Conversely, the impulsive, undisciplined extroverts, learned to be more thoughtful, to listen. Although none of the staff had formal training in group dynamics, everyone learned more of the dynamics and the process.

While seminar as a technique was successful, our project design locked a small group of students and teachers into three years of meeting twice weekly. For optimum growth, groups should be shuffled more frequently.

Teacher-Student Relationship:

One of the most important aspects of working with non-academically oriented students is to maintain flexibility. Any valid, intellectual or emotional question should be attended to. Flexible in this context should not be construed to mean lack of teacher preparation, but rather to mean teacher readiness for any divergent topics of importance.

Sometimes the surest way to reach goals, was to go toward it in a circular way, rather than a straight line.

Put aside lesson plans if necessary and seize every opportunity in the classroom to get them to express freely the feelings which interfere with learning. Beware of misunderstanding the meaning of stubborn learning blocks. Teachers should not take it personally, should not regard students' achievement as a measure of ability to teach or their ability to learn. We become especially vulnerable when we try to rescue students from chronic failure. We feel too responsible, inadvertently sharing their illusions about our power. Experience showed us, when a student makes up his mind not to learn, no one can teach him.

Teachers must maintain a positive attitude even if it hurts, and it does. These students question school and their commitment is often equivocal. For some, special help classes, tutoring, and clinics seem to make them feel more trapped.

It's important for teachers to set a minimum of rules, but to be consistent. Keep teacher talk to a minimum and guard against passivity; build an involvement.

Evaluations:

The problem of evaluation was a critical and puzzling one. Marking systems in general use today, brand these youngsters as failures. In our society, we sniff at the gentleman "C", and only "B"s and "A"s are regarded as acceptable. This fosters avoidance of failure behavior with low-on-totem set.

When standardized tests were given, resistance was staunch. As one boy said, "Here goes another put-down and we won't even learn to correct our mistakes, we just learn that our percentile is low." For purposes of our study, standardized tests were required. After watching the test-taking behavior, however, it appeared that what was being measured was frustration, anger, and anxiety levels.

In the classroom they preferred short quizzes once a week; tests geared to cover a limited area, and with feedback immediately after the quizz.

For some subjects, for all pupils, a "pass" or "fail" option seems desirable. For students lacking in confidence and some basic skills, it is especially desirable. It should encourage them to broaden horizons without the nagging fear of a low evaluation.

As experimentation evolved with various forms of evaluation, grades, no-grades, etc., it soon became evident that even more than an acceptable marking system was the track three'rs need to be like everyone else.

We think there is merit in a no-failure system. Individuals would have contracts to be worked through at their own speed. Accomplishments are recorded, but no one fails, although it might take him longer to move on to the next task. In other words, lack of a grade signifies that the set standards have not yet been met.

Organization:

The track three as identified at Syosset High School includes a variety of pupils; the slow learner, the lazy and unmotivated, pupils lacking in basic skills, and emotional problems. We question the validity of designating these low achieving students as a category different from the standard, with all the implications that everybody reads into this. The tracking system and the purposes underlying its original organizations leave little doubt that track three occupies the bottom of a hierachy. The implication is that for track three students to be successful, they must remediate and move up from their lowly position. We submit that most track three students are not less than the standard students, but perhaps different in attitudes, values, intellectual skills and certainly, experiences. We feel it highly unrealistic to expect they will become just like their track two peers. Further, we feel very strongly that something must be done to foster their achieving and peer status with the track two students. Therefore, we recommend that the track three designation be eliminated and that we have more than one standard track with curricula that are different, but equal.

The ungraded plan, and humanities approach, modular scheduling of non-tracked students seems to offer much. The large group arrangement lends itself to stretching their horizons and self-respect; the small groups to remediation and group process benefits.

Experience has strengthened our opinion that these students are deficient in basic skills such as reading, mathematics, written and oral communication. Part of our recommendation for the track three program is an effort to provide remedial work within the framework of a regular class.

We are also responding to the relative lack of intragroup stimulation, the absence of other kinds of reactions to learning, and the sometimes devastating effects of feeling "so different from everybody else" that we have observed in our students. With track three'rs there is continuous reflection and reinforcement of negative attitudes toward self, scholastic achievement and aspirations which result from their self-containment and insularity.

Until such time as heterogenous grouping, and the Nova type plan can be initiated, we recommend enriched track three be continued to take care of these students. We further recommended that enriched track three experiment be tried at the seventh grade level. The results should be more valid for several reasons. Seventh grade pupils would not be as deeply involved in adolescent changes, and they would not have experienced a previous track three "put-down", and their defenses not so deeply entrenched.

While we are aware that the elementary schools have given much time and thought to the underachiever and learning blocks, we urge further study and experiment. The start of most of these problems is in the early years of life.

High school is rather late to start with these youngsters. Better to try new techniques in elementary school before the student internalizes a low self-image and an overpowering need to avoid learning situations. The social-sexual demands of adolescence complicates attempts to remediate and motivate in high school.

Therefore, we strongly urge that a district committee be formed for the purpose of determining what is the earliest school level where "avoidance of failure" pattern can be identified, and what are its main characteristics. If it is feasible, then a pilot or experimental program should be instituted for purpose of modifying this problem,at the earliest possible grade level.

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XII Appendixes:

Description of Pictures

A. "Father-Son" card 7BM from the Murray Thematic Apperception Test.

B. Two men ("inventors") in a shop working at a machine*.

G. Boy with vague operation scene in background; card 8BM from the Murray Thematic Apperception Test.

H. Boy in checked shirt at a desk, an open book in front of him*.

* See McClelland et al, "The Achievement Motive"

COLLECTING STORIES
Directions

Four 8½ x 14 inch sheets of paper clipped together were handed to each subject. On each sheet four sets of questions were printed. The sets of questions were spaced on the sheet so that one quarter of the page was allowed for writing about each of them. The four questions, adapted from Murray (1938), were intended to insure complete coverage of a plot. They were:

1. What is happening? Who are the persons?
2. What has led up to this situation? That is, what has happened in the past?
3. What is being thought? What is wanted? By whom?
4. What will happen? What will be done?

The experimenter read the following instructions:

This is a test of your creative imagination. A number of pictures will be projected on the screen before you. You will have twenty seconds to look at the picture, then about four minutes to make up a story about it. Notice that there is one page for each picture. The same four questions are asked. They will guide your thinking and enable you to cover all the elements of a plot in the time allotted. Plan to spend about a minute on each question. I will keep time and tell you when it is about time to go on to the next question for each story. You will have a little time to finish your story before the next picture is shown.

Obviously there are no right or wrong answers, so you may feel free to make up any kind of a story about the pictures that you choose. Try to make them vivid and dramatic, for this is a test of creative imagination. Do not merely describe the picture you see. Tell a story about it. Work as fast as you can in order to finish in time. Make them interesting. Are there any questions? If you need more space for any question, use the reverse side.

The room was then darkened for twenty seconds while the first picture was projected on a screen before the subjects. After twenty seconds the picture was turned off, the lights were turned on, and the subjects began writing. The experimenter kept time, and after a minute had been allowed for each question, would say, "Allright, it is about time to go on to the next question." When the subject had been writing for thirty seconds on the last question, the experimenter would say, "Try to finish up in thirty seconds." At the end of the final minute he would begin to prepare for the next picture, allowing no more than fifteen seconds more than the required time for finishing the stories. The lights would be dimmed and the next picture projected on the screen for twenty seconds, and so on without interruption until all four stories had been written. The four pictures used in these particular six experiments will be designated B, H, A, and G (in order of presentation). The first two of these are reproduced in McClelland. The second two were from Murray TAT series (TAT 7 BM, "father-son" picture; and TAT, 8 BM, "boy and operation scene" picture).

Procedure in Scoring Stories

The following are definitions of scoring categories.

Achievement motivation or need for achievement (N-Ach) is defined as "the concern over competition with a standard of excellence."

Definition of Categories

I. Achievement Imagery (AI)

1. Competition with a standard of excellence

(a) One of the characters in the story is engaged in some competitive activity other than pure cases of aggression where winning or doing as well as or better than others is actually stated as the primary concern. Wanting to win an essay contest, or an apprentice wanting to show the master that he, too, can fix the machine, are typical examples.

(b) If one of the characters in the story is engaged in some competitive activity other than pure cases of aggression but the desire to win or do as well as or better than others is not explicitly stated, then

(1) Affective concern over goal attainment, and
(2) Certain types of Instrumental Activity are considered as indicating that the desire to compete successfully with a standard of excellence is implicit in the story.

Examples of (1) would be: "The boy wins the essay contest and feels proud." "The boy loses the contest and becomes bitter." "The boy anticipates the glory that will be his if he should win."

An example of (2) would be: "The boy is working very carefully on his essay."

(c) Meeting self-imposed requirement of good performance. In order to score for AI what is needed are words to the effect that a good, thorough, workmanlike job, and so forth is desired, or statement showing the affective concern or Instrumental Activity that will allow such an inference.

Typical examples are: "The boy is studiously and carefully preparing his homework." "The boy is worried because he cannot quite grasp the meaning in the textbook assignment." In order for AI to be scored the story must show concern over the excellence of the task performed, in other words, concern over personal achievement.

2. Unique Accomplishment

One of the characters is involved in accomplishing other than a run-of-the-mill daily task which will mark him as a personal success. Inventions, artistic creations, and other extraordinary accomplishments fulfill this criterion.

3. Long-Term Involvement

One of the characters is involved in attainment of a long-term achievement goal. Being a success in life, becoming a machinist, doctor, lawyer, successful businessman, and so forth, are all examples of career involvement which permit the inference of competition with a standard of excellence unless it is made explicit that another goal is primary, e.g., food for kids, personal security. The relationship of a specific task to a long-term achievement goal must be clearly stated and not inferred by the scorer when it does not fulfill criterion. (1. above)

If at least one of these above three criteria are scored, then the story may be scored for the following categories as well.

II. Achievement Thema (Ach TH)

Achievement thema is scored when the achievement imagery AI is elaborated in such a manner that it becomes the central plot or thema of the story. Striving for an achievement goal and eventual attainment of the goal may be the central plot of the story. The scorer must decide whether or not the whole story is an elaboration of the achievement behavior sequence. If there is any doubt about the achievement imagery being central to the plot, Ach TH is not scored.

III. Instrumental Activity (I)

Overt or mental activity by one or more characters in the story indicating that something is being done about attaining an achievement goal is considered instrumental activity. Instrumental activity is scored only once per story even though there may be several instrumental acts stated. There must be an actual statement of activity within the story independent of both the original statement of the situation and the final outcome of the story. If the first sentence of a story describes such a situation as "two men are working on a new invention" and there is no further statement of Instrumental Activity in the story, I would not be scored. Neither would I be scored if a story went on with no statement of Instrumental Activity and ended "they will finish the invention." (See McClelland, Chapter 4, for a full description of analysis of stories.)

The presence of a scoring category in a story receives a score of one point for each of the categories, making a total possible score of three points per story.

DAILY ANECDOTAL RECORD - EXCERPTS

Thursday, October 21, 1965:

Period 1 class saw film, "The Scientific Method", postponed from last week. Instead of having discussion of film and application of its principles to group discussion, I decided to have them answer questions based on the film in order to settle them down and give them something that they recognize as "work". They seem to need some carefully structured quiet work for part of each period to keep them from becoming overstimulated.

Period 2 - Via questions and answers we began to analyze the question for discussion:

> "How can Syosset High School do a better job of educating young people?"

We established the fact that we would have to agree on what we mean by educating, before proceeding to the question. In the course of exploring this problem - What do we mean by educating--I had occasion to remark, in response to a question, that I didn't know, wasn't sure. A few minutes later, I observed that I often learn from my students and that we all learn from one another every day. Gary K. raised his hand, and, in a pleasantly ingenuous manner smilingly observed that teachers can be so different from one another. "Last year I had a teacher who said he knew all the answers, and you've just told us you don't know everything. He also used to say that he was the teacher and we were to learn from him, not the other way. Now you just said that you often learn from us. It's funny how different teachers can be!" Before telling how I responded to this perceptive observation, I would like to say that Gary's remarks suggest to me that perhaps the spirit of the program is beginning to get through to some of them. I responded by saying that I'd like to bet that the other teacher was a young person, much younger than I--that when you're young as they are, you often think that you know everything but that as you grow older, you begin to realize that you know, or can be sure of, very little. "Since I'm very old"(!), said I, "I know hew little I know!" We all laughed at that.--We went on to include in our definition of education experiences encompassing all aspects of school life, not just textbook learning.

October 13, 1965: Discussion - The Rise of Christianity

A. Jewish Antecedents
  1. Idea of Messiah
  2. Concept of Messiah at time of Roman Conquest

Read from Bible - Genesis Account of Adam and Eve

A. Question-Bible as historical source
    1. Accuracy in Israeli-Arab war
B. Paul - Idea of mission

Read from Acts of Apostles (Chap. 8)

Map work - illustrate difficulties

This lesson maintained the interest of both classes. Both groups had only the vaguest ideas about the Bible or its place in the Western World. They were only aware of its religious significance, although no student had ever read any portion of the Bible, either Old or New Testament.

Only one student had even a "nodding" acquaintance with the history of the Jews, although they had all heard of Moses. No student knew of Solomon, Saul or David!

They were totally unaware of the historical significance of the Bible and were interested in an account of the use of the Old Testament by the Israeli army to discover the routes of old roads. (They used roads that were built 4,000 years ago, but had been buried in the interim).

The students had only a superficial understanding of the relationship between Judaism and Christianity. This is one area that needs a lot of stress.

Friday, October 29, 1965:

Again, with two classes in one, I used an outline of the "Rise of Charlemagne". I taught this class, just as I would a track two class. By dictating the "story" in outline form, interspersed with a study of the wall map, - I feel that the lesson went over fairly well. Most students seemed to enjoy the lesson, which was spiced with various commentary on the historical figures in the lesson. Of course, the second class proved to be a challenge, with the two chatterboxes, Debbie M. and Keith H. in the same room. A few pertinent remarks would put them in their place for awhile, and we managed to get something accomplished. The two above mentioned individuals seem to "infect" the others with a sense of unruliness.

Week of October 10 through 14, 1966:

General Observations

This week's work was devoted to a study of the rights of Englishmen, or more specifically, to those rights which present day America has received as its heritage.

The lessons included a lot of discussion and board work. In general, the classes were active and interested. Both groups have difficulty taking notes in the sense that they have not developed note-taking skills beyond copying an outline from the board. They need more practice in organizing materials and in separating the important details from the trivial.

The first period class is a much better class as far as attention, interest and seriousness of purpose are concerned. The second period class is a much more difficult class to teach. With the exception of J.K., R.S., and J.S., they seem to be totally uninterested. K.H. tries to be disruptive and C.L., E.L., and J.P. are constant chatterboxes. C.E., D.B. and J.K. are the most responsive members of the group, and have participated in a meaningful way to the discussions in class.

Specifics:

G.K. seems to be very negative about the course. He likes the material, but is very resentful of the fact that it is "special" On Tuesday, he intimated that I taught differently when I was with my track two'rs. I invited him in as a guest for my track two class, but his schedule would not allow it. The invitation did make an impression however.

On Thursday, I had a big session with the whole class on the same topic of "being special". Most of the kids are beginning to get over the idea that we are "mickey-mousing" them. M.Z. and W.F. even mentioned that the course was not "Track Three", but was just a different version of track two. G.K. immediately closed off, but he was listening to my remarks. I told them that a certain amount of complaining was healthy, but that when it became a way of life, it was time for a little self-examination. They obviously see themselves in a way that is far different from my view of them. I said that it seemed to be another case of "The Eye of the Beholder" (They remembered the movie from last year)- and they should get their own image squared away.

November 21 through 23, 1966:

This week I tried something that grew out of the lesson on Friday, when Mrs. R. and I combined classes. I used the board to list the advantages of the Revolutionists in our War of Independence. On Friday, when both classes were combined, the response was amazing. There was more participation and more interaction than at anytime previously. I used the same method this week each day, and the results were the same. For the first time, I had a real discussion going among the students on a few vital topics. For example, G.K. brought up the fact that the United States under the Articles of Confederation, had no Supreme Court, and then, he and B.A. discussed the merits and value of the Supreme Court. Today, in both classes, we had a good discussion on the demerits of a reciprocal tax (even though we never mentioned the word, "reciprocal").

So far, it has proven to be a good method, and I would like to see for how long it will be effective. There is a lot of work as far as outlining the lesson on the board goes, but it might also be effective in variations of the technique.

October 31, 1966:

Book Talk: Biography as a source of history - Guest Speaker, Mrs. G. (Librarian)

Social Studies and English classes were in one room one period. Length of talk - thirty-five minutes with ten minutes to select books.

Student response was very good. They were attentive--when comments were made, they were pertinent. No silly irrelevancies.

T.L. and R.V.--some social exchange. C.E. present, but controlled. There was comparatively little restlessness. They seemed to enjoy.

Teacher Evaluation - Excellent presentation. Thorough preparation. Each student instructed to withdraw book. This is the Social Studies class requirement, but will be coordinated with English requirement in relation to study of the Biography, as a form of literature.

November 1, 1966:

Discussion - "The Catcher in the Rye". (Many students were absent--Holy Day.)

Wide range of discussion--Parents as examples of behavior-Eleventh year behavior--Mental struggle leads to self-destruction--Structure of novel--Protagonist-Antagonist.

Student Response: R.R. (When bell rang) "Boy! It's hard. You have to know so much"--mimicked me by framing questions as I do--Also tried to get involved in discussion--(even as I do too).

Greg--really gave of himself--still judgmental however--Comment on behavior of "you eleventh graders"--who should have more control. Brought out Holden's lack of parental models since he was always away at school. B.A.: "Parents can be a guide". T.L.: Grimaced at this, but no comment. R.R.: Placed education at private school at higher level. They have seminars there. (Sic!)

B.A. started a "high-level type" trend in discussion by bringing up idea of protagonist. Does this novel have an antagonist, if there's only Holden? On to idea of conflict--Protagonist and Antagonist--from which T.L. evolved--"Then Holden must be protagonist and antagonist because he's fighting with himself."

G.K.: "Holden is a baby--most of the time. He wants to be grown-up-grey hair, drinking at a bar--but he acts like a child too".

On to--teenagers are both--the struggle to grow up. T.L.: "Well, that's how we are--On to--Junior high students compared with high school students--so much was said--but, they still do not hold on to one idea for extended time.

M.T. gets a bit confused--language--and, I think, mores interfere with full comprehension. Even H.S. made one or two comments.

Teacher evaluation - Beautiful! Small group closed itself together (without actually forming a circle.) Gave R.R. leadership, which he took with alacrity and aplomb.

For the first time I saw the possibility of holding a discussion. They talked to one another, back and forth. They listened and responded.

November 15 and 16, 1966:

Continuation of discussion of "The Catcher in the Rye" -
Holden's likes: children; nuns; animals; the dead.

Student response - Very good--all to the point--and thinking along--drawing conclusions as to threats to Holden deduced from what he likes and is comfortable with.

T.L.-(Wednesday) Wonderful--sensitive--yet, had to destroy what she had created by tearing into Holden as "crazy--nuts!". T.L. (Thursday) Talkative in childish, unrelated fashion--wise-cracks. She seems to negate a "good" day with a "bad".

G.K.-Always protests-- "We read into the novel. I do not see these things. Why don't you ask straight questions?" T.L. tried to explain how we deduced---but G.K. just resists.

Introduced idea of inviting psychologist to give a "scientific" explanation of Holden.

Teacher evaluation - On the whole, this book has everyone involved; and while there is constant rejection of Holden--I have an idea he is making his mark. The diehards who are not reading: R.R., R.G., K.H., and M.Z. (M.Z. so involved in his difficulties) Re: M.Z.--Spent almost whole period looking for his pass for physical--couldn't find it. "I'll get into trouble if I don't go--You won't let me". Teacher: "Not without a pass". M.Z.: "Well, I'll tell them it's your fault. You didn't let me go".

December 15, 1966:

"Raisin in the Sun"--Representation of different points of view of Negro Community within the play. Conflict of generations--New and old ideas.

Period 1: More open, at ease with discussion--On whole, they are less aspiring (re: college, I think) than Period II, therefore, less on defensive re some ideas like:

Conflict------generations
God------------belief versus atheism
Expression of feelings

Fewer snippy remarks directed at me in regard to freedom of expression. T.L.: Always throw a curve at me--I suppress them--their freedom of speech. J.A.: They can't express themselves if they disagree with me.

Re:--Discussion conflicting ideas--God--Man--(Man makes "miracles"--not God.) Period I immediately picked up: Airplane--moon journey, etc. Period II--H.S. "Airplane is man's miracle". Life itself--"Oh, man's not so great anyway".

Suddenly--T.L.-"Will you tell me why we have to discuss this point for a half-hour?" (discussion was on about five minutes). R.R.--Intense listening (because he is going to use this material on tests)-"Because it's interesting". T.L. "Well, you're (meaning me) always trying to tell me what to think". R.R.: Strong defense of me, the teacher---T.L. and R.R. shouted back and forth at one another. R.R. accused T.L. of closed mind--not seeking any other point of view and being stupid. Other students--She has to have the last word--and she does--even if it's sotto voce!

Poor T.L.--she needs help--Converts everything as against her. Always on the defensive--thus always ready to lash out. I begin to think she is a compulsive talker.

R.R.--seemed to see right through T.L. He shouted to her that she always misinterpreted. The class accepts her behavior. I guess they know her better than I do. After this incident, T.L. refused to continue reading her role, the daughter. J.M.: "I'll read." B.M.:--had refused to read her role, Mama. She was really doing badly--Was she being shown up? J.M.: "She's an atheist!" "I would slap her in the face too, like mama!" (Character, Beneatha) J.K.: "But, she's been exposed to other ideas"(more accepting than J.M.)

September 27, 1966:

Quiz - Law and Rights

Both classes received quizzes to start the ball rolling. The discussions about law and why the accused has many rights and protections were lively and informative. They seemed happy that a lawyer will speak to them.

September 28, 1966:

The quiz proved that the students learned something from the discussion yesterday. The second quiz question was a disaster, with only the steady J.P.'s, L.L.'s, R.C.'s and N.F.'s accepting the responsibility of going into the book with an open mind. The real surprise is K.R. She is coming out of her shell little by little.

The class periods were fruitful; even so, the majority didn't read the assignment. It was a meaningful lesson in the classes, for I had them interpret key paragraphs. They did very well and understood the author's method of characterization.

October 24, through 28 and 31; November 1 through 4, 1966:

Introduction to "The Catcher in the Rye"

The novel is going over--but, as usual, the neurotic personality of Holden is not understood. With the exception of S.M., R.W., R.L., D.H.--all the students have been reading and responding in class.

The first written assignment was to pretend they are Holden and respond to a photograph of four marines carrying a dead comrade. By the end of the period the compositions were handed in with short immediate reactions.

The next three days were spent in an attempt to help the students construct characterization according to political, social, religious, economic beliefs of Holden, and have them refer specifically to the book, and remembering the elements of illustration, detail and reason. It will be interesting to observe how they react to correcting the papers and rewriting them according to the outline.

B.V.G., R.C., L.L., and M.G. were the interested ones. A.B. didn't take pains, but understood Holden, and had a great ear for Holden's language.

A noted change took place in D.M., A.B., and T.R.--as the end of the semester approached--their attitude changed from one of hostility to the loveable con artist.

I failed all students who scored below fifty in the end term examination. They were R.W., R.L. and A.S. The test was difficult. The scores were in the high eighties, and nineties, only three seventies, the rest in the sixties and fifties.

R.L. has slipped into oblivion.

November 28 through December 2, 1966; December 5 through 9:

Reading "Raisin in the Sun" in class--Final exam. for second marking period

Student response - This play went over big. D.M. even came around. She did excellent "cold" readings of "Ruth" in the drama. D.S. did just as well. P.M. tried the male lead, and kept plugging. A.B. was absent a lot, but was attentive, and read a part effectively. He also knew more about civil rights than any other student. He also knew the story of Prometheus. B.V.G. continues to show improvement in classwork, homework and attitude. J.S. did a good job--when prompted. She and N.F. were the only two in the seminar group who didn't fight for parts.

The non-seminar group was less responsive to the play, but they enjoyed doing it. R.W. is useless. T.R. is very uneven in his classwork--going from baby talk to fairly sophisticated answers.

The best student in this class is G.B. He takes excellent notes, answers difficult questions, and asks excellent questions of me. M.A. is influenced by R.W. and T.R. Alone, he does allright. R.L. has picked up--He is doing something. He had fun with the teaching machine, but had to jump around aftertwenty minutes. A.S. is bad off, but is trying at least. K.R. is an excellent student.

While talking of the family, R.C. commented how she dislikes her father. E.C. seems barely alive. She and S.M. are household drudges already. D.H. is an anomaly, but at least he has shown some interest. T.L. is as jumpy as a three year old. He is an appealing kid. He would never be nasty or mean to anyone--teachers or students.

Teacher evaluation - The play was a success--for the kids could identify with the "kitchen drama".

"Our Town" is next--Role playing again. It will be interesting to see if it goes over.

October 5, 1966:

The second chapter of "Ox Bow Incident" - The dialogue and how it should be read; the leader of a group and what he can do

Student response - The students in the non-seminar group failed the quiz, but came alive in the discussion. The seminar group did well in the quiz, and killed the discussion. K.R. was the star of the class. L.L. seems to be coming back into the world.

Teacher evaluation - The intensity of the dialogue finally came across to the students. They understood the dynamics of the situation. How carefully they must read, and how to classify the reactions of the characters.

October 10, 11, 13, 1966:

Sins of Omission in matters of law and order; sins of commission in matters of law and order; what is the nature of man--good, evil, blank slate? Characterization in the movies.

Student response - The three periods began with quizzes based on the topics. The results were mediocre in both classes.

The lack of interest gets to be too much; and it is like pulling teeth to get a reaction. They read from their books in class to answer questions on characterization--and how the characters commit the sin of omission and commission against society. The question concerning "which sin is greater" caused commotion in both classes, and stimulated reaction amongst the students.

The students who stood out were: E.S., D.W., J.S., L.L., (she seems to be coming up to her old style), K.R., R.C., and G.B. were alive during the discussion.

The most interested students in the film discussion were: E.S., A.S., D.W., and G.B. These showed a great deal of interest. The week was a complete waste for D.M. She was nasty and would not stop doing her history homework.

Teacher evaluation - My evaluation of the week was that only half the students read the assignments, but they all have gained from the basic material that was presented and related to the book.

October 13, 1966 - Period II:

Reading and discussion of "The Ox Bow Incident" - Some final comments about man's responsibility to his fellow man.

Student response - All focused on reading--sections of last chapter--as usually happens when I read aloud, they shift from page to me--However, they were generally involved. Some strong ideas emerge from these pages--Collusion, shifting of responsibility, and assumption of responsibility.

J.A. couldn't bear this last. Thought Davies an "idiot" for feeling the way he did--being guilty for others.

We had just talked about "The Investigation", Peter Weiss play which I had seen--Drew parallels with actions in "The Ox Bow Incident": Examined author's purpose for writing novel--so I turned to the board, wrote---

Davies---------Jesus

If you call Davies an "Idiot" for feeling guilty--then you must also call Jesus an idiot for assuming man's guilt!

I didn't say that! J.A. cried--You can't make that comparison--T.L.

Wait a minute--He didn't die because of guilt--B.A.
What did He say? (Teacher) --Forgive them, O Lord, they know not----------
Yes, oh, yes-----B.A.

M.Z. was meanwhile sitting intently and intensely--pulled into himself and pressing forward---thinking, listening--and suddenly, he cried--"She's right! She's right--A track one class would get it like this (snap of fingers)--a track two would take longer--but you, and he stretches out and waves arms, you're all dumb! You can't get the idea".

J.A. and T.L. bristled! J.A. said, "I'm not dumb. Just because I don't agree with her, (teacher) doesn't make me dumb!"

T.L.--How can you argue such a thing--You can't argue about a religious idea. She stayed to talk with me after the bell rang--I tried to show her that the point being made was one of logic, not religion.

Teacher evaluation - Good show--Kids- and maybe some thoughts begin to perk. (Although, C.L. says, "I never think".)

Use of shock technique--If M.Z. had not "seen" it--
Use of syllogism--------picked it up and used it, it
would have fallen flat--it was an
abstraction.

Students who read "Ox Bow" are admitting, "It's good".

To M.T.--the whole thing is foreign--especially the ideas of law, justice--other abstract ideas.